AVS FENCING

Catalogue

Ask about our Posts now with 15 Year Guarantee

www.AVSFencing.co.uk

Welcome to the AVS Catalogue

AVS is the leading supplier of Fencing, Decking and Landscaping products in the South. Our aim is to provide you, the customer, with the best quality products at affordable prices. We work hard to ensure that we have comprehensive stocks of all the product ranges in this catalogue and we also give FREE delivery, within our trading area, to our customers, subject to a minmum order value.

The products within the catalogue give you the opportunity to make the most of any garden, making it a more pleasant place to spend time. While a beautiful garden will add real value to your property, items such as closeboard fencing can add an increased level of security.

We feel that this catalogue has something for everyone, not just in terms of products, but also in terms of the wealth of information it contains; this can be used by professionals and their clients as a reference guide and by novices as a manual.

Prices can be found in our online shop, indeed the shop is open for you to make your purchases 24 hours per day. Visit www.AVSFencing.co.uk

Sadly, there is not enough space to list all our products within the limited confines of this catalogue, so please visit one of our branches of 'AVS Fencing Supplies Ltd' for a wider range of products, they are located in: Henfield, Guildford, Lewes, Rudgwick, Peterborough, Wokingham, Stansted & Harlow, please see the contact details page of the catalogue for exact locations. Our staff are always happy to answer any questions you may have.

AVS BEST SELLERS

AVS Fencing Supplies offer thousands of products to our customers, but we realise that so much choice can be a bit daunting. That is why we have introduced a best sellers icon, which is now displayed throughout our catalogue, in order to help you spot those key products that have historically been very popular with our customers.

AVS TIMBER POSTS

The Fence Post is the single most important part of your Fence. What can you expect from our timber posts and what does our 15 year guarantee mean? Further details can be found on Page 29.

ACKNOWLEDGMENT

The illustrations in this book are of products which can be supplied by AVS Fencing Supplies Ltd. and show examples of fencing and gates erected by customers, competitors, suppliers and individuals. In most instances it has not been possible to acknowledge these individually.

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HOW TO PAY

You can use VISA or MASTER CARD credit cards to pay for your products. We will also accept Switch, Solo and Delta debit cards, as well as payment by cheque or by electronic banking.

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Cards are accepted on all cash sales.

Credit account facilities are available upon application, in advance of purchase. These are subject to references and except for limited companies an initial trading period on a cash basis.

TERMS AND CONDITIONS

All prices stated are liable to change without prior notice. Prices charged will be those ruling on the day of delivery or collection of goods unless it is otherwise agreed in writing.

AVS Fencing Supplies Ltd. reserve the right to decide not to supply goods to any customer without stating reasons.

AVS Fencing Supplies Ltd. is unable to guarantee the accuracy of the information contained in this publication and therefore will not be held liable for any loss or consequential loss arising out of it's use in anyway.

All goods remain the property of AVS Fencing Supplies Ltd. until all goods are paid for in full.

All sales are made under our full terms & conditions which are displayed on the website and at branches.

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Cards are accepted on all cash sales.

CLOSEBOARD (using Arris Rails)

Ask about our Posts now with 15 Year Guarantee

STRENGTHS

- Ideal on sloping ground
- Design can be varied for appearance or site conditions
- Traditional design can be strong and long lasting
- On-site assembly means no heavy panels to lift
- Low lifetime annual ownership costs

WEAKNESSES

- Takes longer to erect than panel systems
- Initial costs higher than some alternatives
- More planning is required before ordering materials when using morticed posts.
- Concrete 3m gravel boards are not suitable for soil retention

Regional variations apply to this product with major differences applying between the South East and the Midlands. The Peterborough Branch stock predominantly caters for Closeboard fencing using blank or recessed posts. This is fully described in the next section.

INTRODUCTION

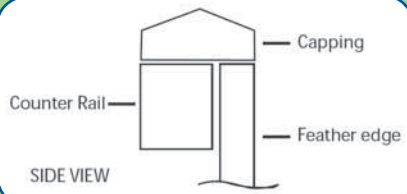
Closeboard fencing is actually a generic name for any kind of solid board fencing. It is usually constructed with featheredge boards and erected using a rail framework.

Closeboard is a very flexible fencing style; its characteristics can be changed to suit almost any circumstances, there are standard sizes and practices, but these can be varied, for example fence posts can be used closer together when in exposed locations to give extra strength or erected the standard 3m apart in other uses. Post heights can be varied from 750mm to 3.6m, the most common height being 1.8m. As a decorative feature trellis can be added along the top of the fence.

FENCE DESIGN CHOICES

COUNTER RAIL AND CAPPING

While counter rails and cappings are not essential items, they can be an attractive addition or used to give strength. When capping is added, a counter rail is also needed to provide sufficient width to fix the capping along the fence top. It is normal, but not essential, for the counter rail to be accommodated within the mortices of the fence posts.

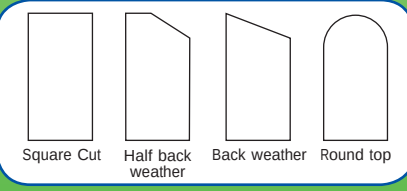


COLOUR

A fence derives its colour from two possible sources: a pre-finish or a timber stain. A pre-finish is a preservation treatment applied to the wood at the sawmill. There are usually two colours available: a light natural brown (sometimes called green) or a dark brown finish. The second option is that the wood is stained on site with a proprietary timber stain; if this option is desired then wood with the light brown finish should be used. For more information see the timber stains section of this catalogue.

POST TOPS

For arris rail fencing the most commonly used top is the half back weather top and for 1.8m high fencing our stock of pre mortised posts have this top. Cant rail fencing normally uses square cut posts. However any type of top may be cut for you in our workshops.



CONCRETE POSTS & GRAVEL BOARDS

These are normally chosen when a long service life is required, however simply because concrete posts are chosen for the fence doesn't mean that concrete gravel boards must be used. Concrete posts have certain limitations: the common 100mm x 100mm size for 1.8m fencing is not suitable for use in exposed locations or where there is a risk of being hit by vehicles because the post will fracture. Concrete posts are heavy items therefore handling materials will be a consideration for fence runs some distance from vehicle access.

Contrary to popular opinion, 3m concrete gravel boards, used in closeboard fencing, are not suitable for soil retention due to the flexibility of the boards, please see the section of this catalogue dealing with Soil Retention for suitable alternatives.

SITE PLANNING

FACE

The first decision to make when planning a closeboard fence is which side the rails will be showing and which side will be the face side with the featheredge boards. If the fence belongs to you then the face will probably be on the outside of your property, this is not a legal requirement merely tradition. Special consideration should be given to the orientation of fences between properties and those that are visible to public areas to avoid exposing fence rails outside your property.

Sometimes it is necessary to change the face side part way along a fence run or turn the whole fence around because part of the fence is exposed, the only other option in theses situations is to double board, i.e. nail featheredge to both sides of the fence.

In some circumstances it is not possible to erect the fence facing the direction desired because there is not enough room to be able to fix the boards into place e.g. the fence is very close to a wall.

SLOPING GROUND

One of closeboard's major strengths over panel fencing is that it is able to follow the contours of the ground, therefore it is better suited to uneven ground and removes the need to step the fence. This obviously means there will be no triangular gap to fill under the fence, created when it is stepped.

A closeboard fence can be stepped if desired. Stepping may occur at the top of the fence, the bottom or both, for example: stepping the bottom of a fence is required when the fence runs along a patio and then drops down to garden level or drops off a dwarf wall, in these circumstances it can be arranged so the bottom of the fence is extended to suit the lower ground level and the top of the fence can be level achieving a consistent look.

Whether stepping is needed and morticed posts are used it should be decided before erection because posts are made for stepping and as such are either left-handed or right-handed; it is not possible to use them the opposite way.

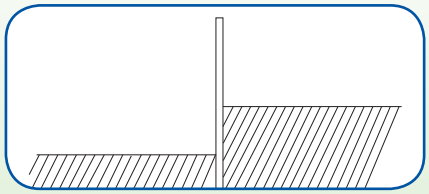
WIND LOADING

The wind loading on any fence depends on a number of variables: the geographic location, its orientation to prevailing winds and the height of the fence. Wind loading normally becomes an issue for fences over 5ft high and must be taken in to account during site planning.

If you think that your fence is in an exposed location, closeboard has the flexibility to deal with this and there are a number of ways to add support to the fence; a counter rail and capping could be added to the top of the fence, or the distance between post centres could be reduced. A combination of the two is also a viable option.

GROUND LEVEL

Ground levels often vary from one side of the fence to the other. Adding extra gravel boards below the fence can make up a difference of up to 450mm in ground levels; these can be formed from thicker timber to add strength. Extra supporting stumps or posts may be required to fix these retaining boards. When dealing with a greater difference please see the section of the catalogue covering gravel boards.

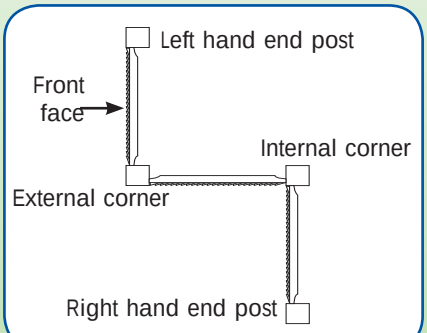


CORNERS AND ENDS

End and corner posts are normally left or right handed and cannot be used interchangeably. End posts for closeboard fencing tend to be used where the outer face of the post may be visible, but where the post finishes abutting another fence, hedge or similar feature, ordinary intermediate posts can be used without harming the final look.

There are two types of corner post: internal and external. An internal corner post is used where the fence post is to be on the inside of the fence. An external post is where the corner post is to be on the outside of the fence.

Be aware that in some circumstances square posts, such as 100mm x 100mm, if ordered with centre mortices, can be used universally.



MATERIALS

Arris Rail	Gravel Board	Featheredge	Counter Rail	Capping	Centre Stump	Cleat
2 ex 75 x 75mm	150 x 22mm	2 ex 100 x 22mm	50 x 32mm	Ex 65 x 38mm	50 x 50mm	50 x 25mm

GENERAL

FENCES ABOVE WALLS:

Closeboard fencing is an ideal fence to erect above low brick walls. For best results the posts are normally erected behind the wall. The traditional method of constructing the fence is modified to allow the featheredge boards, when the fence is complete, to be positioned above the centre of the wall rather than behind it.

Option 1

Nail the rails directly to the face of the fence posts. Arris rails with just the back trimmed may be used, alternatively use 87 x 38mm rectangular rails.

Option 2

Fix plain posts behind the wall and bolt stub posts to the front of these. The stub posts will be the same height as the fence and be morticed to receive arris rails in the normal manner.

A gravel board is normally not required when a fence is erected above a wall.

FIXINGS TO WALLS:

It is normally standard practice when a fence abuts a building or a wall, to fix into the masonry rather than sink a post into the ground. This is because there are normally foundations not far below the ground making this a difficult job. Therefore, the solution is to fix a timber plate which is normally 100 x 50mm in size on to the wall to which the fence is connected. Wall plates, as we call them, are normally morticed in the same manner as the fencing posts and are fixed with between 2 and 4 masonry fixings, 3 would be used for 1500-2000mm high fences.

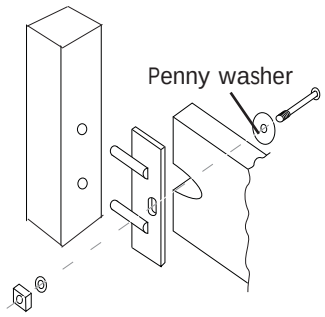
CONCRETE GRAVEL BOARDS

These are only usually used in conjunction with concrete posts.

They are not designed to hold soil, as in fact over their full length they are very flexible and easily damaged. There are three fixing points along their length, they are holed in the mid position enabling an M8 x 80mm coach screw or a M8 x 120mm roofing bolt to be connected to the centre stump. They are slotted at each end for connection to the post cleat with M8 x 80mm roofing bolts, a large round penny washer is required at each end to support the bolt head.

Sloping ground is a problem with concrete gravel boards because each end will need to be cut with a disc cutter which is time consuming.

Remember, also with concrete gravel boards, the spacing of the posts is very important and a timber spacer should be made up to represent the gravel board ensuring that the posts are correctly spaced apart during the erection of the framework.

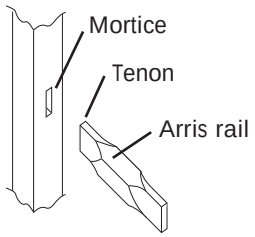


Connecting concrete gravelboards to concrete posts.

ARRIS RAIL CONNECTIONS

Each end of the Arris rail is shaped or tennoned to fit into a mortice hole, which has been preformed into the post. Arris rails are available in 2 forms, now becoming increasingly popular is the form with ready shaped ends. The plain ended variety are shaped on site traditionally with an adze, although it is possible to shape the ends with other tools if only a small quantity are required.

It is normal practice to nail the rail joint through the front of the post.



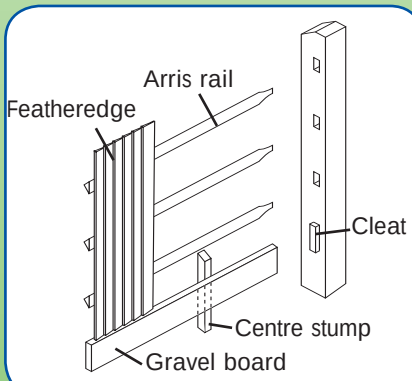
METHOD OF ERECTION

Stage 1
Erect posts and arris rails as a framework.

Stage 2
Add the gravel board and centre stump.

Stage 3
Pale up the featheredge boarding onto the fence.

The basic process applies to Cant Rail fences.



FAQS

What sizes of timber posts are commonly used?
100 x 100mm and 100 x 125mm

What number of rails should be used for a 1350mm high fence?

Both 2 and 3 lines of rails, one acceptable. AVS recommend 3 lines for additional strength.

How many featheredge boards will I require? This depends on their width.

Allow for 37 x 100 mm wide or 30 x 125mm wide per 3m section of fence.

CLOSEBOARD (using Cant Rails)

MATERIALS

Cant Rail	Gravel Board	Featheredge	Grooved Capping
Ex 47 x 125mm	150 x 22mm	2 ex 125 x 22mm	Ex 65 x 38mm

CANT RAILS

Rails are nailed to timber posts at each end using one 100mm galvanised wire nail for each rail connection. The top of the post is usually set flush with the top of the featheredge but may be set lower. The first rail is then fixed 150mm below the top of the post. If required at end posts rails may be run on a short distance past the post.

GRAVEL BOARDS

These are spaced away from the posts by first using an off-cut of cant rail which is nailed to the front face of the post between the post and the gravel board.

CONCRETE RECESSED POSTS

Rails and Gravel Boards are fixed using nuts and bolts. Because the posts taper the bolts may vary in length. M8 x 140 or 160mm for the top rail 160mm for the mid and bottom rail and 160mm for the timber gravel board or 180mm for concrete gravel boards. Timber gravel boards need spacing away from the post with an off-cut of gravel board.

PANELS (Lap and Closeboard)

Ask about our Posts now with 15 Year Guarantee

STRENGTHS

- Low initial cost
- Simple method of erection
- Gravel boards act as soil retention system

WEAKNESSES

- Short to medium-term life expectancy
- Not suitable in very exposed locations

FENCE DESIGN CHOICES

INTRODUCTION

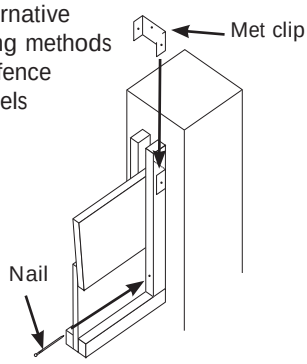
Lap panels are made to suit different budgets consequently they have different attributes.

The most common is the medium weight panel, these are usually described as fully framed, meaning they have timber batten around the outside edge; some lighter weight panels do not have a batten covering the bottom.

This can be important, as concrete slotted posts need to have fully framed panels used with them.

Panels are available in a number of common heights: 3ft, 4ft, 5ft and 6ft (these are 915, 1220, 1525 and 1830mm respectively).

Alternative fixing methods for fence panels



PANEL COLOUR

Panels are generally available in 3 different colour finishes, a fully treated light beige, the traditional orange-brown or a darker brown finish. When choosing the panel colour remember that timber posts and timber gravel boards are available in 2 colours: light and dark brown. Panels can also be stained with a proprietary timber stain, see that section of the catalogue for more information.

TIMBER POSTS

AVS has 75 x 75mm, 100 x 75mm and 100 x 100mm treated softwood post sections and 100 x 100mm concrete post sections available. Choice of post section is purely a customer preference. AVS recommends the use of larger post sections in exposed localities or where a long fence life is required.

Ask about our Posts now with 15 Year Guarantee

Panel Height	Post length when concreted in	Post length when using Metposts
3' (915mm)	1.8m	1.5m
4' (1220mm)	2.1m	1.5m
5' (1525mm)	2.4m	1.8m
6' (1830mm)	2.7m	2.1m

TIMBER GRAVEL BOARDS

These are designed to prevent the panel coming into contact with the ground, helping to prolong its lifespan; timber gravel boards also fill the gaps beneath panels caused by stepping and inconsistencies in the ground level.

CONCRETE POSTS

Concrete posts for panels are usually slotted. Panels are not actually connected to the posts, which is why the panels need to be strong enough to retain their own rigidity between the posts. The main advantage of concrete posts, apart from their long life expectancy, is that panels can be lifted out from the posts and replaced easily as long as there is sufficient headroom to do so.

BEST SELLER

CONCRETE GRAVEL BOARDS

Concrete Gravel boards sit within the concrete slotted posts, below the fence panel, performing a similar job to the timber variety. They are available in two heights: 150mm and 300mm.

SITE PLANNING

FACE

The appearance of each side of the fence panel is much more similar than with a closeboard fence, however the decision still needs to be made as to which way the fence will face. The front face of the lap panel will tend to have the manufacturers badge and fewer visible battens. Another distinction between the two sides is that it is likely that daylight will be seen through the overlapping slats when viewed from the rear. The front face of a fence traditionally faces the outside of your property, although there is no legal requirement for this, it is also recommended that your neighbours be consulted if you decide not to do this.

STEPPING

Fence posts are always erected so that the top of the fence panel will run level. If the ground slopes there will be a triangular gap beneath the fence panel, if the fence is designed to contain pets then the gap may need to be filled with a gravel board.

GROUND LEVEL

Sometimes the ground level varies on each side of the fence, or the ground level has become varied due to the ground being levelled to form a base for a patio, or similar. Any minor difference in ground level can be accommodated with a timber gravel board. Where there is a greater difference concrete gravel boards will allow a gap of up to 450mm to be filled, this is because a 50mm Concrete gravel board is stronger and stiffer than a 22mm Timber Gravel board. It should be remembered that where soil retention is a major role for the fence, foundations might need to be increased to provide additional support.

WIND EXPOSURE

By its very nature, panel fencing is lightweight in construction, it does not have structure rails providing true physical integrity, thus panel fences, particularly those at 1.8m high can only cope with medium wind loadings. The closeboard style of panel, is able to cope with a higher wind loading than traditional overlap panels

CORNERS AND ENDS

Unlike most other fencing types, corner posts and end posts are not handed. When using concrete posts, end posts are only needed where the end surface is exposed, in other circumstances the normal intermediate post can be used. Concrete corner posts have a greater cross-section than intermediate or end posts, usually being 125mm square.

CUT PANELS

It is unlikely that a fence run will be exactly divisible by the panel length and therefore it will be necessary to cut a panel to fit, this will be covered in more detail in the section covering method of erection, below. What needs to be considered during the planning stage is whether the look of the cut panel will detract from the overall appearance of the fence run. It is possible to cut two fence panels if you are going to be left with a very short section. If the fence is a renewal of existing fencing, it is usually easier not to excavate new fence posts on top of existing concrete foundations, to avoid this; a shorter panel can be inserted, thereby varying the post positions.

POST LENGTH & HEIGHT OF PANELS

Available Height	Post Lengths when concreted in	Post Lengths for use with metposts
3’ 915mm	1.8m	1.5m
4’ 1220mm	2.1m	1.5m
5’ 1525mm	2.4m	1.8m
6’ 1830mm	2.7m	2.1m

Common Post Sizes & Types	
75 x 75mm	Treated softwood
100 x 75mm	Treated softwood
100 x 100mm	Treated softwood
100 x 100mm	Concrete

ERECTION PROCEDURE

It is always easiest to erect panel fencing descending a gradient, you must also decide which end you wish to have the cut panel.

Stage 1, erect the first post and concrete into the ground.

Stage 2, excavate the next hole, erect the fence panel onto the post that is already in position, insert the 2nd post into the previously dug hole and nail the panel to it, first checking to see that the panel is level and you have the desired projection of post above the panel. Now concrete in the 2nd post.

Repeat the process until the fence is complete. Make sure that the fence is temporarily propped up for 24 hours until the concrete is set.

Postmix Ready Mixed Concrete ‘for speed’ available from all branches of AVS Fencing.

CUTTING PANELS

Cutting a Lap Panel is a simple task that should take about 10 minutes on a 6' (1830mm) panel.

Lay the panel on the ground and mark the required width on one side of the panel at the top and bottom. Remove the existing batten from the end of the panel and cut the top and bottom battens back to the marked length. Nail into position the previously removed end batten. Carefully turn the panel over and remove the end batten for this side, and proceed to cut the top and bottom battens as before. Now fit the end batten, ensuring the two end battens are properly aligned and nail together. Now the excess section of the panel can be sawn off. Additional nails are usually required, 40mm x 2.36mm are suitable.

JOINING TO WALLS

Where fences butt against masonry walls, it is normal practice to fix a timber wall plate against the masonry. For fence panels this is normally 75 x 50mm timber.
Remember to allow sufficient length for the projection above the fence panel to match in with the posts. A 1.8m long wall plate is not sufficiently long for a 1.830mm high fence panel. A wall plate may be fixed dependant on length using 2 or 3 No 10 x 100mm frame fixings. (see fixings page)

FAQS

Are fence panels fully treated?
The majority of brown and orange panels are treated, but not as fully as the posts. AVS also sell pressure treated panels which are beige in colour.

Can Metposts be used with Panel fencing?
Metposts are designed for use with fence panels.

How deep are the posts in the ground?
For 1525mm and 1830mm tall panels allow a minimum 760mm lower panels can be reduced to 600mm.

PALISADE FENCING

Ask about our Posts now with 15 Year Guarantee

STRENGTHS

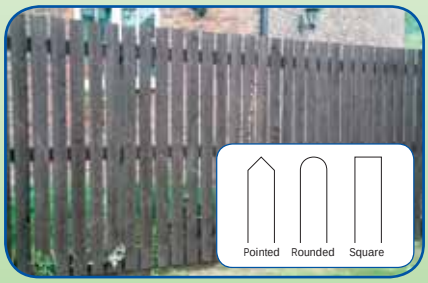
- **Traditional design that is attractive at lower heights**
- **Robust, long lasting fence**

WEAKNESSES

- **Time needed to construct**
- **Comparatively more expensive than alternatives**

INTRODUCTION

Palisade fencing, is used when an unobtrusive fencing solution is required. Palisade fencing is normally available with a 75mm palisade pale at heights up to 1500mm. At heights above this, typically 1800mm, the pale is normally 100mm wide and the fencing is often called 'hit and miss' fencing. 3 types of palisade top are available: pointed top (sometimes called a 2-way top), round top and square top. For heights between 900mm and 1200mm pointed or round tops are usually chosen. Above this height it is common to have square top palisades. Round top palisades are often chosen for areas where children are likely to be, for obvious safety reasons.



PALISADE SPACING

With 75mm palisades the standard gap between them is 75mm, so a standard 3m fence bay will need 19 no. palisades. Gaps as small as 25mm may be used with sawn timber but anything less will require prepared timber to maintain uniform spacing. Spacing wider than 75mm normally looks inconsistent with the appearance of the overall fence. Both 1500mm and 1800mm may be erected double sided, with palisades fixed to the front and back of the fence alternately, this is normally used in a commercial situation as it provides a degree of privacy while allowing airflow through the fence.

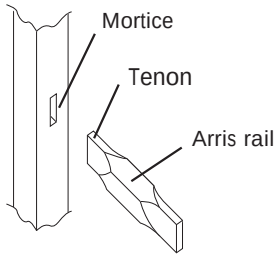
SITE PLANNING

ARRIS RAIL CONNECTIONS / FIXING TO WALLS

ARRIS RAIL CONNECTIONS: Each end of the Arris rail is shaped or tennoned to fit into a mortice hole, which has been preformed into the post.

Arris rails are available with ready shaped ends.

FIXING TO WALLS: It is normally standard practice when a fence abuts a building or a wall, to fix into the masonry rather than sink a post into the ground. This is because there are normally foundations not far below the ground making this a difficult job.



METHOD OF ERECTION

TRADITIONAL TYPE: Stage 1 Erect posts, arris rails and centre stumps. Stage 2 Nail on the palisades.

FAQS

How many palisades to allow? For a 3m long bay using 75mm palisade at 75mm spacing allow 19 No.

Do I need to concrete Palisade into the ground? Posts for palisade fencing require concreting into the ground.

How many Arris rails do I need? Fences up to 1,200mm high use 2 rails and fences above this height have 3 No. rails.

What size post section is normally used?
100 x 100mm post are the most common when using arris rails 100 x 75mm may also be used.

Do I need a centre stump? A centre stump is absolutely essential.

PICKET FENCING

Ask about our Posts now with 15 Year Guarantee

STRENGTHS
- **Faster and easier to erect.**
- **Matching gates are cost effective.**
- **Attractive round tops as Standard.**

WEAKNESSES
- **Less robust than traditional Palisade.**
- **Require more post holes dug.**
- **Cannot follow contours, steps required on slopes.**

FENCE DESIGN CHOICES

INTRODUCTION

Available in 900mm & 1200mm heights, all panels are 1800mm long and these may be cut down to suit if short panels are required. 75x75mm section posts are the normal size used with Picket fence panels although alternative sizes could be used. On sloping ground it will be necessary to step the panels, allow posts of sufficient length to do this, have a minimum of 450mm in the ground for 900mm high panels. It may be worth considering traditional palisade fencing if you have a sloping site as this can follow the contours of the land resulting in a better appearance.

METHOD OF ERECTION

Dig the post hole for the first fence post and concrete this into position. Now working from this, measure out the position for the next post and dig the hole to the correct depth so that the post reaches 50mm above the panels top rail. Stand the post in this hole and erect the first panel between the posts. Please ensure that the panel is fixed to the centre of the post to allow room for the next panel. Decking Screws are great for fixing the panels to the posts. Decking screws are easy to re-adjust but nails will also suffice.

GATES

Lightweight attractively priced matching gates are available at a standard width of 900mm for the 900mm high panels. For the 1200mm high or for bespoke widths traditional heavier weight palisade style gates are available, these should be hung on 100x100mm posts.

Gate posts should be erected to the full height of the fence. Care should be taken with planning the connection of the panel to the gate post to achieve a neat appearance. One option where a larger post is used is to fix the panel rail to the side face of the gate post using an additional timber batten.

FAQS

How do I cover up the post and achieve an even spacing of the pales where the panels join?

Fix a surplus pale over the joint.

Do I need to concrete the posts into the ground?

Yes use traditional concrete or ready mixed Post Fix.

POST AND RAIL

Ask about our Posts now with 15 Year Guarantee

STRENGTHS

- Good vision through fence
- Attractive livestock barrier
- Robust, traditional design
- Post and Rail fencing works well along modest curves

WEAKNESSES

- Mesh may be required for animals
- Relatively more expensive than stock fence

FENCE DESIGN CHOICES

INTRODUCTION

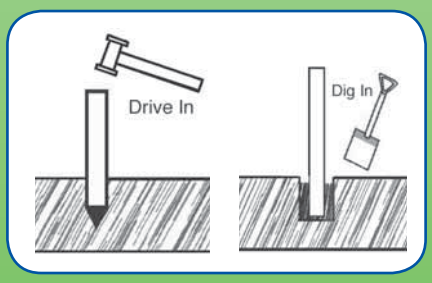
Post and rail is a generic term used to describe any fencing system comprising of solid timber rails. There are a number of common variants such as: Sawn, cleft, and half-round. For examples of these see the gallery. The type of fence depends on budget and personal preference rather than a type being particularly well suited to an application.

NUMBER OF RAILS

In post and rail fencing the most common number of rails used is 2, an additional rail may be used if smaller animals are being kept. Fences using 4 or even 5 rails are possible, but not common. The height of the finished fence may vary slightly.

BACK FILL FOR POSTHOLES

With post and rail fences concreting the post bases in the ground is optional because there is no wind loading upon the fence. Ground conditions and the purpose of the fence will be the factors to consider when deciding if to concrete the posts, or not, exceptions to this are Knee rails, which are always concreted and half-round posts which are exclusively driven.



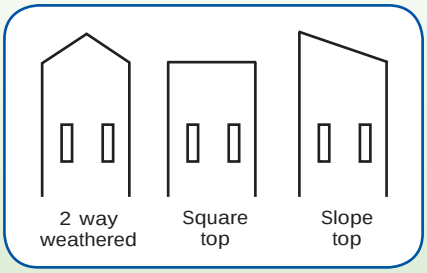
FENCE HEIGHT

Most post and rail fences are erected either 1200mm or 1350mm out of the ground. The height of the top rail in a morticed system will usually be 150mm less than the post height. Factors influencing the choice of height will include the type of livestock, visibility over the fence and possibly the number of rails being used.

POST TOPS

If square or rectangular sawn posts are used, then different styles of post tops are available, the most common used are 2-way sloped (weathered), square topped and slope top. Square top is the cheapest, availability is another factor.

AVS normally stock 2 way weathered with other styles made to order.



ADDITIONAL MESH

In order to make Post and Rail fencing livestock proof or to keep small children within its confines, it is necessary to add wire mesh. Although any type of mesh can be used, the most common are stock fencing, Rabbit Netting and chainlink. The height for the mesh will vary depending on its purpose, but is usually between 900mm and 1200mm. Remember, when erecting mesh of this type against post and rail fencing, vegetation will grow up through the mesh and consideration should be given to leaving a gap near ground level, for maintenance purposes.

SITE PLANNING

FACE

Morticed post and rail fence systems don't always have a front face side and a back. Nailed post and rail systems obviously do and thus the rails would face the outside of the fence, however in some situations, such as where the fence is not marking a boundary there may be some benefit gained from having the rails facing the livestock.

SLOPES

Moderate slopes are not a problem with Post and Rail Fencing, but with steep banks the mortices may have to be modified, or in the case of nailed post and rail, the rail ends may have to be trimmed.

CORNERS AND ENDS

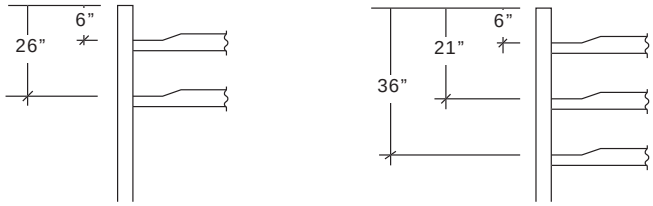
With nailed post and rail there are no special requirements for corner and end posts, although a larger corner post may be used if desired. When morticed post and rail with a large central mortice is used, end posts and corner posts are often erected with two standard posts in the same hole. Where double-mortices are present in the post, such as with cleft chestnut rails, using end-posts is a decision for the user and corner posts will need to be specified separately; it may be best to supply a sketch of the fence line at the time of ordering.

MESH ATTACHMENT

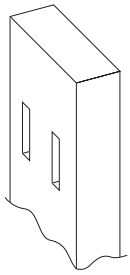
When deciding which side of the fence to attach mesh to, it is necessary to consider any curves that may be present. Mesh is attached more easily to an external, or convex, radius. The mesh will look less obvious if the post and rails are set between the viewer and the mesh.

MORTICES

Standard mortice dimensions for sawn posts



Posts normally have double mortices for chestnut rails.



ERECTION PROCEDURE

Post & Rail
Start at one end and work along the fence run. Morticed posts must have all rails fitted for each bay before back filling the post hole. Nailed rails are added after back filling with each rail spanning 2 bays and the joints staggered.

Knee Rail
Concrete in the posts and nail the rails in place, add the zinc straps once the concrete has set.

FAQS

Which way up do Cleft rails go? Cleft rails have the bark side down.

What are cleft rails made from? Normally chestnut, occasionally oak, oak rails tend to be more splintary.

What are Slip rails?
These are rails which may be removed from the fence by sliding to one side and extracting.
For sawn rails special slip rail brackets are available.

CHAINLINK FENCING

STRENGTHS
- **Vision through fence**
- **Different post types may be used**
- **Cost effective, entry-level security fence**

WEAKNESSES
- **Chainlink can be damaged through abuse**
- **Not suited to curves and awkward shapes**

DESIGN CHOICES

INTRODUCTION

When used in the domestic situation common heights for chainlink fencing are 900mm, 1200mm or 1800mm high.

Choices for post material are: angle iron, concrete or timber. When fixing chainlink fencing to a timber post and rail fence no separate posts for chainlink mesh will be required. When using timber, either round or square posts may be used. To anchor the chainlink and to keep the supporting line wire under tension, additional ironmongery is needed to connect them to the timber posts in the same manner as concrete posts – see Connection to Straining Posts for illustration.

For a cheap or temporary job the line wires can be wrapped around the post and the chainlink attached via staples to the timber posts.

ANGLE IRON POSTS

These have several advantages; they are lightweight when compared to concrete posts, the straining posts have all the necessary winders and stretcher bars attached and intermediate posts can be erected without concreting, depending on the site conditions. Unless galvanised posts are used, they may be prone to rusting. Generally, painted posts are supplied with a single-coat; therefore they will need to be painted on-site for a long-lasting finish, if required.

CONCRETE POSTS

While concrete posts have a very long life they can be damaged easily at ground level by vehicles or heavy machinery. Due to the weight of the concrete posts they are not always suitable if vehicle access to the fence line is poor.

TIMBER POSTS

Timber is another lightweight, low cost option for fence posts. Timber posts are well suited to lighter weight chainlink. Round intermediate stakes can be driven into the ground rather than concreted.

Ask about our Posts now with 15 Year Guarantee

TYPES OF MESH

Chainlink is made in a number of wire gauges, the thicker the wire the more expensive it is, but it is more durable and longer lasting.

Plastic coated wire is available from stock in the following thicknesses: 2.5/1.7mm and 3.15/2.24mm and Galvanised wire is available in: 2.5mm and 3.0mm thicknesses.

Heavier gauges of chainlink are available to order, these will be appropriate where large numbers of people may be in contact with the fence.

Chainlink fencing comes in two basic mesh finishes - plastic coated and galvanised. The plastic coating, which is normally green, can be applied over an un-galvanised or a pre-galvanised wire. Plastic coating applied to bright wire has a shorter life due to the wire rusting; increasingly a commercial galvanised finish is used. For a very long life or in exposed coastal conditions, core wire galvanised to the British Standard should be used.

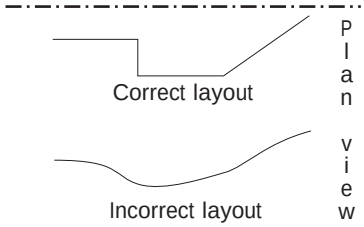
Most chainlink has a 50mm mesh size, although other sizes are available for example 45mm for tennis courts and 40mm for railways.

SITE PLANNING

STRAINING POSTS

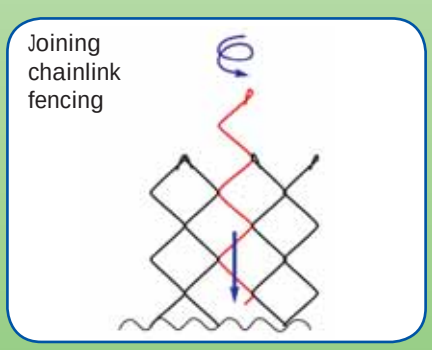
The most important aspect of site planning is the location of the straining posts. Chainlink fence straining posts are necessary at every end, corner and slight change of direction. Straining posts are also required if the fencing is being erected on a hill or bank. Within an extremely long, straight fencing run additional straining posts will be needed.

As a guide the furthest that straining posts should be spaced is 69m apart, in practice, when using lighter weight materials, these should be placed at around half this distance.



JOINING CHAINLINK

The position of the straining posts bears no relevance to the roll length of chainlink fencing as the fencing mesh can be cut and joined at will. To do this butt the two ends of the mesh to be joined together, carefully remove the last wire from one of the mesh ends by undoing the ends and unwinding the wire. Take the loose spiral and wind it back into place ensuring that the mesh to be joined is included.



CHAINLINK FOR SECURITY PURPOSES

Normally Security Fencing is in heights of 1800mm or 2400mm high with barbed wire on top. The designs for security fencing are covered under British Standards 1722, part 1, for the 1800mm high fence and British Standards 1722, part 10, for 2400mm high fences.

MATERIALS

METAL POST PAINT FINISH

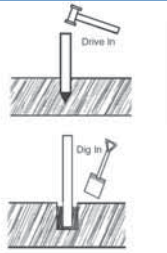
Painted angle iron posts are often supplied with a single coat paint finish, applied by the manufacturers. We recommend that posts be given an additional paint finish to enhance their lifespan, and prevent rusting. Ideally, paint should be applied after the post has been erected but before the mesh is added.

METHOD OF ERECTION

POST BASES

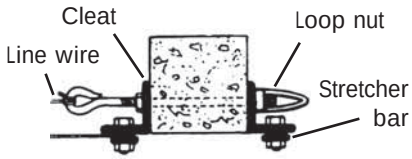
Straining posts and struts must always be fully and firmly concreted into the ground as these form the anchor positions for the strained wire. The intermediate line posts can be driven into the ground, except in the case of reinforced concrete.

The ground conditions will dictate the need for any extra concrete.



CONNECTION TO STRAINING POSTS

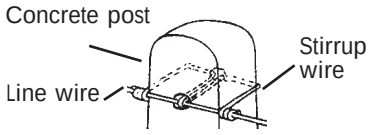
The chainlink is generally connected to the straining post with a stretcher bar. This is treaded through the mesh and attached to nuts and bolts on the straining post. Angle Iron posts always come with straining fittings for tensioning the wire and connecting the chainlink. Concrete straining posts do not come with the straining accessories, therefore it is necessary to specify the ironmongery required to attach the wire and mesh to the post. When using timber straining posts, it is necessary for the user to decide how the straining wires and the mesh are to be attached because there are a number of different options.



CONNECTION TO LINE POSTS

When using angle iron posts the straining wire is attached through the holes in the intermediate stake and no additional tools are required, although this can be done with concrete posts, normally the line wires run across the face of the post.

Dependent on the type of post you are using, you will need to purchase either stirrup wire or hairpin staples to connect the line wire to the line post. With timber posts, line wires would normally be stapled to the post with 30mm galvanised staples.



CURVES

If it is impossible to avoid a radius there are a number of things you can do. The intermediate posts can moved closer together, so that they are between 1m and 2.5m apart, depending on the severity of the curve. The posts should have additional concrete around their foundations and on an external radius optional back supports could be used for intermediate posts, behind the fence line.

FAQS

What size rolls does chainlink fence come in?
Normally chainlink is supplied in 25m rolls, however with thicker gauges of wire AVS can supply half rolls.

Are any special tools needed for joining chainlink?
No, although pliers will be needed with the thicker gauges of wire.

Is the (line wire) straining wire included in the mesh?
Yes, the straining wire is supplied with all chainlink supplied by AVS. With chainlink up to 900mm there will be 2 straining wires, chainlink fences up to 1800 come with 3 straining wires.

LATTICE & TRELLIS

STRENGTHS
- Allows light & vision through
- Simple method of erection
- Ideal support for planting

WEAKNESSES
- Lacks Privacy

INTRODUCTION

Lattice panels are fully framed for strength, the tidy machined framing helps these panels exude quality. An asset to any garden project.

FEATURES

Lattice Panels are normally used to create a fence on their own. Lattice panels are dimensioned at 1800mm in one direction and in the other 300/600/900/1200 or 1800mm. A width of 1800mm is 28mm narrower than a Lap Panel. When using above a Lap Panel packing battens will be required.

FINISH

The standard finish is fully pressure treated and is a light beige colour. This means that the timber has an excellent life expectancy and the colour is a great neutral backdrop for any type of planting.

TIMBER POSTS

AVS has 75 x 75mm, 100 x 75mm and 100 x 100mm treated softwood post sections available. Choice of post section is purely a customer preference. AVS Recommends the use of larger post sections in exposed localities where the Lattice is expected to support planting.

LIVESTOCK FENCING

STRENGTHS
- **Low cost**
- **Long life span**

WEAKNESSES
- **Fence design may only suit one type of livestock**

For post and rail livestock fencing see that section of this catalogue. For temporary electric fencing please see the separate electric fencing literature available from branches.

INTRODUCTION

Stock fence is becoming increasingly popular and is by far the most common choice of wire livestock fencing. Stock fence, also known as stock netting, is a generic term for a range of woven wire-based products available in different heights and configurations to suit a wide variety of farm livestock including Horses and other, more exotic, animals such as Ostriches. Stock fencing is faster to erect than multiple strands of wire and offers a fence that may be suitable for use with a wider range of stock.

The type of stock will affect the suitability of the fence; one of the most important decisions is the height of the fence. Sheep and cattle require a fence of around 1050mm high ponies and horses 1200mm upwards. Deer fencing is the tallest being in the range of 2000mm.

FENCE DESIGN CHOICES

STOCK FENCE

The characteristics of stock fence can vary creating a wide range of alternatives suitable for a range of different uses. The most common type for general farm use is C8/80/15, the code gives information on the size and type of wire, in this case C is a medium gauge wire, the number of horizontal wires is 8, next is the height of the fencing in cm and lastly the spacing of the verticals in cm.

Horse fencing is a style of stock fence specially designed for use with horses, available as HT12/107/8 or the taller version HT13/122/8, using High Tensile wire with the verticals set at 8cm spacing. This close spacing reduces the risk of horses trapping their hooves in the mesh.

Rabbit netting is a traditional wire netting with a mesh size of 31mm. The lower 150mm is bent round at ground level towards the rabbit harbourage and is pegged down or weighted with turfs. A 1050mm high netting will produce a 900mm high fence once the bottom has been folded, this allows for a little sagging before it reaches the recognised minimum height of 750mm needed for rabbit proof fences. If the fence is erected purely to prevent rabbit damage then support the netting by fixing to 2no. High tensile strands of plain wire, one at the top and bottom; these can be fixed with hog rings or CL22 netting clips.

BARBED WIRE

Barbed wire may be used as topping for other fence types, as a top strand with stock fence or as a multi-strand, secure livestock fence. Barbed wire acts to prevent stock rubbing against it and is ideal when used above stock fencing to protect the stock fence.

Barbed wire is mainly used for cattle where 3 or 4 strands are suitable. Often it is used for sheep when existing cattle fences have been converted by using additional strands of barbed wire but it is not normally the first choice for new sheep fences as the number of strands required to make the fence secure means that a specific sheep stock fencing is a better choice, financially. Barbed wire is not suitable for equine use and we recommend the barbed wire be replaced with an electric fence conductor such as wire, tape or rope.

POST AND WIRE

Strands of plain wire are not normally used for livestock fencing unless the strands of wire comprise a permanent electric fence, which offers a viable fence for many different types of livestock. Only high tensile wire should to be used for this type of fence.

MILD STEEL OR HIGH TENSILE STOCK FENCE

If you require a fence that will retain its tautness over an extended period of time you will need to use a high tensile stock fence. If the fence is short term or mainly for boundary demarcation, having little livestock contact, then standard stock fencing will suffice.

The illustration shows a fence which has lost its tautness and will now have a much shorter life expectancy.

STRAINING POST CONFIGURATION

The most common type of straining post uses an angled strut brace. These need to be embedded into the ground a minimum of 900mm and 1200mm is not unusual. The taller the fence the greater the depth required if the post is to remain upright once the wire is strained. If you do not have hole digging machinery, this is the easier type of straining post to erect.

BOX STRAINER

The strongest straining post arrangement, essential for high tensile stock fencing, is the box strainer. The box strainer forms a rigid anchor point, to attach high tensile wire to. This method is more suited to being installed with a mechanical post driver.

INTERMEDIATE STAKES

Stakes to support livestock fencing may be round or $^{1}/_{2}$ round. The length of these starts at 1.65m suitable for cattle or sheep fencing to 2.7m, suitable for deer fencing.

Spacing of posts may vary from 2.4 – 3.0m apart for mild steel stock fencing to 4 – 5m apart for high tensile stock fence or high tensile wire.

A choice of diameter may be available; your choice will depend on stock pressure on the fence and your budget.

STAPLES

Two main sizes of staple are used for livestock fencing 30mm plain and 40mm barbed. The barbed staples are less likely to fall out if livestock knocks the wire or the posts dry out and shrink and are recommended for treated softwood posts.

FIXING WIRE TO STRAINING POSTS

The most common method of fixing High Tensile wire is with a half hitch. It is important with high tensile wires that the pull is from the centre of the straining post. When fixing Mild Steel Wire the simpler wrap around method will hold the lower tensioning forces involved.

METHOD OF ERECTION

SITE PLANNING

Begin by deciding the type of livestock to be contained by the fence: is there likely to be dual livestock use? Is the livestock type likely to change in the foreseeable future? Next, plan any gate positions, and then plan the straining post location for the fence line. Intermediate straining posts are often difficult to plan until the old fencing has been taken down and the hedging cleared back.

MATERIALS

Peeled and treated posts are the most widely used, usually round; these are a natural product which are graded based on diameter eg. 50 – 75mm or 75 – 100mm etc. Length will depend upon personal preference and ground conditions.

GENERAL

Animal safety and life expectancy will depend upon the wire staying tight over as long a period of time as possible. The largest single factor affecting this is the integrity of the straining posts.

METHOD OF ERECTION

1) Put in the main straining posts.
2) Run out a strand of plain or barbed wire close to ground level and temporarily strain.
3) Add any additional strainers and fit any struts required.
4) Drive in the intermediate stakes.
5) Fit the top strand of wire.
6) Fit the remaining lower strands of wire or stockfence.

FAQ

What is the advantage of high tensile Wire?

High Tensile Wire will stay tight longer than Mild steel wire if the fence is properly erected.

Which side of the posts should the wire be fixed to?

Fencing for use with large animals is normally constructed with the wire facing the animals so that they do not push out the staples.

GRAVEL BOARDS

INTRODUCTION

Gravel boards are the ideal solution to soil retention problems when a fence is integral to the design.

TIMBER GRAVEL BOARDS – 22MM THICKNESS

If an existing fence is being replaced then it is often the case that the soil has migrated against the existing fence, in an established garden this can prove difficult to re-level successfully. Thus a change in level will need to be incorporated within the new fence design.

For depths up to 150mm the best way is to add an additional gravel board beneath the fence panels or beneath the single gravel board of traditional closeboard fencing. It is necessary to allow additional length for the fence posts. When buying a closeboard fence, longer centre stumps are also needed, arris rails are sometimes used.

TIMBER GRAVEL BOARDS – 50MM THICKNESS

If a depth greater than 150mm is required for soil retention, this can be achieved by increasing the thickness, using a 150 x 50mm timber joist as a gravel board. A number of considerations need to be taken into account: special timber cleats to fix the gravel boards to the post will be needed. Additional timber supports or centre stumps may be required if post centres are left at 3m. These supports will not join up to the lower arris rail in the normal way due to the additional thickness of the gravel board.

CONCRETE GRAVEL BOARDS

Concrete Gravel boards used in closeboard fencing are not ideal when used for soil retention; they tend to flex due to their length, it is better to use a 1.83m gravel board normally used with fence panels.

Post centres will usually be 1880mm when used with the standard 100 x 100mm concrete slotted posts. To erect a fence of 1830mm with 300mm of soil retention gravel boards the fence posts will be 3.0m long, these will be greater than 100 x 100mm in section. Reducing the height of the fence to 1500mm and using 600mm of gravel boards will enable you to use 100 x 100mm posts, as well as giving you more scope for soil retention.

No special provision is required to erect closeboard fencing into slotted concrete posts, the arris rails will fit into the slots on the fence posts and the featheredge boards will normally rest on top of the gravel boards, as long as the arris rail and the first featheredge board are contained within the slot of the post.

Grange ELITE PANELS

STRENGTHS

- **Range of attractive panels available**
- **Mix of panels can be used in a single fence-line**
- **Simple method of erection**
- **Gravel boards act as soil retention system**
- **Either side can be used as the face side**

WEAKNESSES

- **Limited heights available**
- **Shape and construction makes cutting panels slow and difficult**

INTRODUCTION

All Grange Elite Panels are designed similarly meaning they can be mixed within a fence line, therefore panels with a more open construction can be used where desired and those with a solid design used where a degree of security is needed.

Panel size is normally 1800mm x 1800mm St Lunairs currently 1.95m high. Panels are also available in 1050mm and 1200mm heights (see note opposite).

FENCE DESIGN CHOICES

POST TYPE

Although either concrete or timber posts can be used with Elite Panels it is usual to use timber posts to match the panels attractive appearance. A popular choice is to fix decorative post tops to the timber fence posts when using Elite panels.

GRAVEL BOARDS

As with other panel fencing systems, gravel boards can be used beneath an Elite panel to cover differences in ground level or gaps caused by stepping. Gravel boards designed for traditional lap panel fences are suitable for Elite panels once they have been trimmed to length.

As with all rigid panel systems if the ground slopes then the panels will have to be stepped. Calculate the step required during the planning stage and decide if this has an acceptable effect on the appearance of the fence.

SITE PLANNING

FACE

Unlike other types of fencing there is no front or back to an Elite panel. Although there are slight structural differences between the two sides either can be used to face the outside of your property, however, you will have to ensure that the panels are used in a consistent fashion along the fence line.

Elite panels are difficult and certainly more time consuming to cut, due to their construction and decorative designs. Careful planning can prevent the need to cut panels, although if it cannot be avoided, a half panel is probably the best cut to make. Panels with a convex top may require an additional timber, as the original frame end will be too short to be reused.

MATERIALS

*St. Lunairs Panel

St. Cyprien Panel

*St. Meloir Panel

BEST SELLER

*St Meloir panel is also available at 1050mm high and the St Lunairs at 1200mm high

METHOD OF ERECTION

It is always easiest to erect panel fencing descending a gradient.

Stage 1, erect the first post and concrete into the ground.

Stage 2, excavate the next hole, erect the fence panel onto the post that is already in position, insert the 2nd post into the previously dug hole and fix the panel to it, first checking to see that the panel is level and you have the desired projection of post above the panel. Now concrete in the 2nd post.

Repeat the process until the fence is complete. Make sure that the fence is temporarily propped up for 24 hours until the concrete is set.

Postmix Ready Mixed Concrete 'for speed' available from all branches of AVS Fencing.

FAQS

Do Elite panels come in the same colours as panel fences?
Generally not, however treated lap panels are a similar colour.

Do Elite panels come in the same widths as panel fences?
No, Elite panels are 1800mm wide whereas panel fences are 1828mm wide.

Are Elite panels fully treated?
Yes, the panels are pressure treated for a longer life.

Can Metposts be used with Elite panels?
Yes, they can, but we do not recommend it.

What are the common post sizes?
Normally 100 x 100mm posts are used.

SCREENING & HURDLES

STRENGTHS
- **Easy to erect quickly**
- **Can go round curves**
- **May not need holes dug**

WEAKNESSES
- **Screening needs to be fixed against something**
- **Abuse will damage these products**

PEELED REED SCREEN

A single thickness of reed bound together by plastic coated wire to make a strong but pliable screening. It has many outdoor uses but is used widely by the glasshouse industry for internal screening due to its superior shading characteristics.

Its useful outdoor life is approximately 3 years.

Available in 4m rolls.

Available Heights: 1.5m and 2m

HEATHER SCREEN

An unusual heavy duty screening, approximately 15mm thick made from brushwood heather. It makes an ideal boundary fence and can be used to create a mock thatch effect on garden sheds.

It has an approximate outdoor lifetime of 8 years.

Available in 4m rolls

Available Heights: 1m, 1.5m and 2m

SPLIT BAMBOO

Made from Split bamboo, bound tightly together to form a sturdy but flexible fence or screen.

It is widely used in the design of Japanese gardens and has an approximate outdoor life of 5 years.

Available in 4m rolls.

Available Heights: 1.5m and 2m

WILLOW SCREEN

Made from single thickness willow, bound together with galvanised wire creating a strong yet flexible screen, giving a beautiful rustic effect to any garden.

It has an approximate outdoor lifetime of 5 years.

Available in 4m rolls

Available Heights: 1m, 1.5m and 2m.

HURDLES

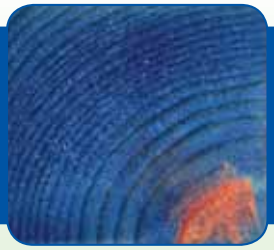
AVS hurdles, available in either Hazel or Willow provide an attractive screen or can be used as a practical windbreak in gardens. Smaller hurdles can be used to provide edging, borders or even to contain pets.

Hazel Hurdles Available: 1.8m x 1.8m, 1.8m x 1.5m, 1.8m x 1.2m, and 1.8m x 0.9m

Imported Hazel Hurdles Available: 1.8m x 1.8m, 1.8m x 1.5m, 1.8m x 1.2m and 1.8m x 0.8m

Imported Willow Hurdles Available: 1.8m x 1.8m, 1.8 x 1.5m, 1.8m x 1.2m and 1.8 x 0.9m

AVS TIMBER POSTS



Cross Section of AVS Timber post - A dye has been used to highlight the treatment, blue area shows the penetration of the treatment chemical

WHAT MAKES OUR FENCE POSTS SPECIAL

Here at AVS Fencing we believe that achieving a deep penetration of treatment into our posts is the single most important factor for a long life expectancy. To ensure that every post that you buy has deep penetration AVS ensures that the timber chosen is the right species and that it is kiln dried prior to treatment. Only Pine (Redwood) rather than Spruce (Whitewood) allows treatment to penetrate deeply into the post, which is why AVS insists upon it where possible for ground contact timber. In case you still need convincing, a 15 Year guarantee is offered with AVS sawn timber posts and machine round posts.

WHAT ABOUT OTHER TREATED TIMBER?

Not all timber items need treating to these standards to achieve a good service life, often their environment is less harsh, examples include feather edge boards and arris rails. Railway sleepers are an interesting case because they are used in many different ways; generally their lower level of treatment will mean that when used in ground contact they will have a shorter service life than our fence posts, used in other ways their service life can be as long. The life of any timber product will be enhanced when attention is given to good design, installation and creating drainage in the soil around it.

For complex projects involving both ground contact and substantial investment in labour such as soil retaining walls it is best to use creosote treated Railway Sleepers as they will give the best service life.

Peeled and treated posts for livestock fencing should ideally be treated to the same high AVS standard creating longevity when used in ground contact. An availability of a suitable volume of pine timber, coupled with high costs associated with drying and treatment has meant that at the time of writing a 15 year Guarantee is not always available on this product.

TIMBER THROUGH THE SEASONS

Timber such as that used in fencing and landscaping is used outdoors where of course it is exposed to sun and rain leading to some physical changes within the timber, some of which will be temporary and others permanent. Commonly seen are shakes, often in posts, these are cracks running with the direction of the grain; these open in dry weather and close in damp weather. Sometimes a piece of timber will warp often moving back again as moisture is taken up, occasionally if the warping is severe it proves to be permanent but this is rare.

What can be done? Timber can be coated with a treatment that will reduce the porosity of the timber and slow down the cycles of drying and wetting. This can help with the physical appearance of the timber although this type of treatment will not always lead to an increase in service life.

BEST PRACTICE FOR INSTALLING TREATED TIMBER POSTS

Don't cut the bottom off a post and embed it into the ground, if you need to cut a post cut the top and then coat with two liberal brush coats of protective endcoat also any cuts or notches made into the post should be re-coated.

When concreting a post into the ground, there must be sufficient drainage; so best not to sit the post on a bed of concrete, creating a boot for the water to collect in. Also the concrete should not reach ground level but should stop at least 100mm below.

SIDE ENTRANCE TIMBER GATES

Ask about our Posts now with 15 Year Guarantee

A full range of styles are available - see illustrations for common styles.

GATE SIZE

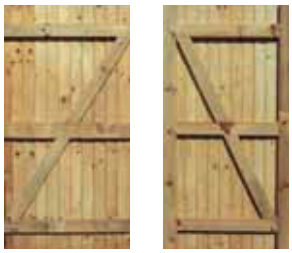
The most common width for a side entrance gate is 900mm, although they may be up to 1200mm wide. Gates can be constructed to any height requirements, the most common being 900mm, 1200mm, 1500mm and 1800mm. Unless otherwise instructed, 50mm will be deducted from the height by AVS to allow for ground clearance e.g. an 1800mm gate would be manufactured to be 1750mm high.

When measuring the size of a gate remember to allow for a tolerance between the gate and the post, normally 15 – 20mm overall to ensure that the gate opens and closes properly. When a gate is hung on a wall normal practice is to use a wall plate, these are usually 50mm thick, but thickness can be varied between 38mm and 100mm in order to make an opening fit a standard 900mm wide gate.

You should take into account whom will use the gate before deciding on the width, motorbikes, wheelchairs and lawn-mowers may require a larger width.

FRAMING

Traditionally gates have a frame consisting of vertical timbers; one on the hanging side and one on the slamming side of the gate, these are morticed and joined with the cross-members and diagonals. The frame can be dispensed with when purchasing a budget or utility gate, although this is not recommended.



HANDING AND HANGING

Gates are normally available either left or right handed and are diagonally braced accordingly (illustration shows gate with universal braces). The handing is decided when viewing the gate from the front. Gates are usually hung to open inwards, if gates open outwards the ironmongery will be seen from the outside of the gate, this can create additional problems when fixing hinges.

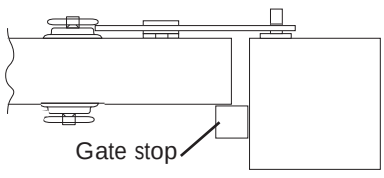
Palisade gates require timber blocks to ensure a flat surface to fix the hinge to. Closeboard gates require the use of longer screws in order to make sure the hinges are fixed into the rail and not just the featheredge.

Hinges for gates are always fitted on either the front or rear face of the post or wall plate and never between the post and the gate

GATE STOPS

All gates must be fitted with a timber batten to act as a gate stop otherwise the gate ironmongery will break prematurely. It is normal practice to fit a pair of gate stops, one on the hanging side and one on the slamming side to cover up any gap between the gate and the gatepost.

Alternate solutions are required to make gates child friendly for play areas etc.



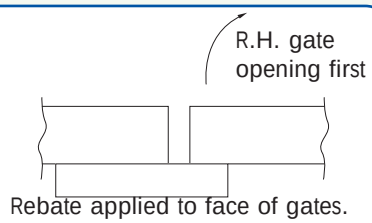
DOUBLE GATES

When gates are to be hung as a pair, a left-handed and a right-handed gate will be required. The gates will not close against a slamming post thus the gates must close against each other by using rebated slamming styles.

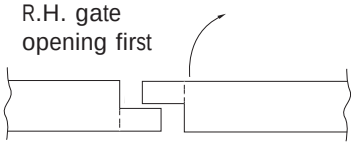
This can be achieved by fitting a rebate strip to the face of the gate or using two rebates; one on each gate stile.

One of the gates will need to be fitted with a drop-bolt to fix it to the ground when closed; the gate without the drop-bolt will be the gate that is opened first. When ordering, the gate that opens first and the direction of opening will need to be specified.

Remember to allow for a clearance where the gates meet in the gate width.



Rebate applied to face of gates.



Traditional rebate position.

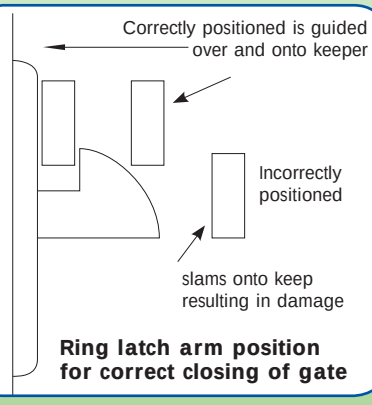
IRONMONGERY

AVS SUPPLY A FULL RANGE OF GATE IRONMONGARY.

The hinges used will depend on the size and weight of the gate e.g. with a 1750mm high closeboard gate, 375mm or 450mm T-hinges would normally be used. For widths over 900mm heavier hinges are available.

Ironmongery on the closing side of the gate depends greatly on the height of the gate. For gates that cannot be reached over, we recommend a 125mm ring gate latch as a standard latch and an oval pad-bolt as a padlocking option.

Lower gates that can be reached over tend to use an auto gate latch; we would recommend the larger design as being more durable.



Ring latch arm position for correct closing of gate

FAQ

What size gate hinges?
These are usually just under half the width of the gate. Gates which have springs or very frequent use can require larger hinges.

DISCLAIMER

Ironmongery, including hinges & latches sold separately.

FIELD GATES

Ask about our Posts now with 15 Year Guarantee

STRENGTHS

- **Attractive traditional design**
- **Low wind resistance**
- **Robust, long life expectancy**

WEAKNESSES

- **Low height gives little pedestrian security**

GATE WIDTHS

Most gates are supplied in Imperial sizes and are available in width increments of 305mm. Therefore it is best to calculate the overall width, including the ironmongery, before setting out a driveway or building brick entrance pillars so that standard widths can be used whenever possible.

AUTOMATION

When a field gate is to be automated it is normal to use a hardwood Iroko gate, specifying a thicker bottom rail when ordering. A thicker bottom rail is required to prevent the gate from bowing and to ensure the reliability of the automated system.

GATEPOSTS

Gateposts are usually 2.1 metres long, which is sufficient to hang most field gates on level ground allowing for a minimum of 760mm of the post in the ground. Longer posts may be required if there is a fall along the length of the gate, to allow enough post length to concrete into the ground.

Gatepost section can be varied to suit the size of the gate:

125mm x 125mm suitable for very small pedestrian field gates

150mm x 150mm suitable for gates up to 1800mm

175mm x 175mm suitable for gates up to 3660mm wide

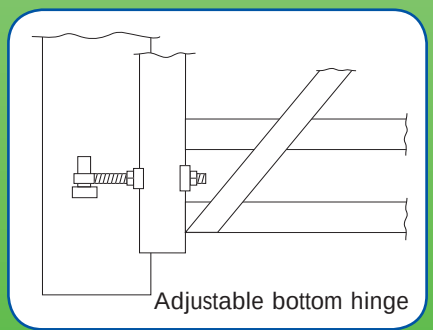
200mm x 200mm suitable for gates over and including 3660mm wide

POST BASES

If the gate is wider than 1830mm, the gateposts will require substantial foundations, without this the gate will drop as the posts move in time due to the weight of the gate, eventually pulling the gatepost over.

If strained wire fences are directly attached to the gateposts; something AVS does not recommend, the gateposts have a tendency to open outwards, again causing the gate to cease functioning properly.

All AVS field gates are normally supplied with an adjustable bottom hinge, which allows the user to adjust the gate easily throughout its life. Other types of hinge are available separately.



Adjustable bottom hinge

POST TOPS

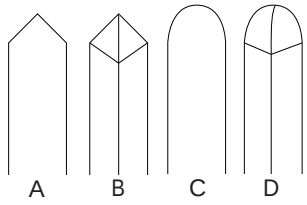
These are usually 2 or 4 way weathered or rounded to match the tops of the gate styles.

A 2 way pointed or weathered top

B 4 way pointed or weathered top

C Round top

D 4 way round top



DOUBLE GATES

Double Gates may have equal leaves e.g. 1830mm and 1830mm or unequal leaves e.g. 915mm and 2750mm.

The drop over loop is the latching method often adopted for pairs of field gate.

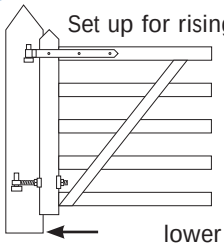
Field gates do not have rebates, although a centre stop may be fitted (see illustration) which performs a similar function.

Timber centre stop for double gates (optional) 450mm drop bolt also illustrated.

SLOPING GROUND

Field gates tend to be back hung, meaning that the gatepost ironmongery is fixed to the back of the post and the gate opens to the side.

If the ground behind the posts rises, it is possible to make the gates rise upon opening in order to maintain ground clearance. However, this means that the gates will not perpendicular when it is open, depending on the amount the gate is raised.



LATCHES AND LOCKING

The top gatepost pin is usually turned upside-down to prevent the gate being lifted off the pins. The best way to lock a field gate is with a chain around the gatepost and gate stile. Self-locking gate latches do have the facility for padlocking, but is more suited to domestic applications.

Where the gate is used infrequently, it is best to lock it with a chain and padlock around both the gate and the gate stile.

DECKING

BEST SELLER

INTRODUCTION

Timber Decking has become one of the most popular additions to a garden in recent years; it is used as a natural alternative to a patio and offers an attractive outdoor living area. It can be used to create a level area, where other types of landscaping may not be economically or physically viable.

Deck construction is relatively straightforward and the deck boards will cover the majority of the frame construction work, ensuring any mishaps or mistakes can be hidden from view and not detract from the final look of the deck.

PLANNING YOUR DECK

Certain aspects of a deck need to be decided before construction takes place; therefore a thorough plan is required.

This plan should include basic factors such as the size of the deck; the wrong size can make a deck look out of place. The shape and layout of the garden will affect the size and shape of the deck as will any features within the garden such as trees or ponds. Will these features be removed or be incorporated into the deck?

The number of levels your deck has will impact on the method of construction.
A multi-level deck may be necessary in order to accommodate ground conditions, such as sloping ground or banks. Before constructing a raised deck check with
your Local Authority for building regulations as these may differ between regions; AVS recommends that professional advice is sought for decks over 600mm high.

Steps and access points need to be carefully considered to ensure that the final deck is used in the manner originally envisaged; they can also be used to guide the way people move through your garden.

Balustrading adds to the look and feel of a deck but also acts as a safety feature, especially if you are considering a multi-level deck, or if children will use the deck as a play area.

FACTS & FIGURES

Decking Screws per square metre

How many decking screws are required for fixing your deck boards per square metre? This will depend if your chosen board is 125 or 150mm wide, bearing this in mind approx. numbers needed are 40 deck screws for 125mm wide boards and 30 deck screws for 150mm wide boards per square metre.

Decking Boards per square metre

150mm wide deck boards will cover each square metre more economically than 125mm wide decking boards.150mm deck boards require approx 7 linear metres of decking and 125mm wide decking require 8 linear meters of decking per square metre.

Wastage

Remember to allow for this it will vary depending on how boards are laid but is normally 10-20% of the total quantity.

FILLING IN SIDES OF RAISED DECKING

To complete the final look of a deck, particularly with a raised deck, it is possible to fill the sides in. This can be done with additional deck boards cut to length. If doors are added it can become a useful, sheltered storage area although not a completely dry one.

FEATURES

Items such as permanent seating, in-deck lighting or ponds need to be planned before construction, as this will make their installation simpler.

DESIGN OPTIONS

DECK BOARDS

AVS Deckboard – 3.60M lengths Ex 38 x 125mm a sturdy size which may save in base construction costs. Smooth one face and reeded on the second. A quality treated softwood product, produced from slow grown redwood for great reliability.

Winchester deckboard – 4.20M lengths Ex 32 x 150mm with one grooved and one reeded face. A quality treated softwood product, produced from slow grown redwood for great reliability.

Hardwood Balau deckboard – 3.60M 31x145mm finished size with one grooved and one reeded face.

Canterbury deckboard – 3.60M & 4.80M lengths Ex 32 x 150mm with one smooth face and the second grooved. A quality treated softwood product, produced from slow grown redwood for great reliability.

DECKING CONSTRUCTION

INSTALLATION OF THE BASE

Think of the deck as two separate parts: the supporting structure beneath the floor and the floor of the deck, this may help simplify things.

The object of the timberwork structure beneath the deck boards is to create a firm base to lay the boards on and how you choose to do this is really up to you there is no right or wrong way as long as it supports the weight.

A common method is to use 100 x 100mm timber posts concreted into the ground. These would normally be set at 1800mm centres around the outer frame of the base and at the same centres when used in conjunction with support beams. For low-level decks other ways of firmly supporting the structure can be used such as bricks, blocks or slabs.

Where the deck joins a garden or house wall, a timber wall plate, normally 100 x 50mm in size, is bolted to the wall. If it is set on a house wall, ensure that you allow at least, one brick, preferably two, below the Damp Proof Course. The rest of the frame can be joined to this wall plate and the joists can be fixed using joist hangers.

Posts need to be concreted into the ground; the depth required will depend on the height of the structure above the ground, for decks of 450mm height or lower, post embedment of 450mm should be sufficient, because the loading on the deck at this height is mainly downwards, remember to add some concrete beneath the post.

For the main structure, particularly the posts that are load bearing; fixings should be M10 nuts and bolts. Other semi-structural joints can use coach screws or landscaping screws. To reduce weed growth, a weed suppressing membrane should be laid under the deck and weighted down with gravel.

100 x 50mm decking joists showing typical framework for a small raised deck. This uses a mixture of timber posts and a wall plate to support the deck.

JOISTS

The normal size for joists is 100 x 50mm. If it is a ground level deck and therefore desirable to keep the finished height as low as possible, 75 x 50mm or 75 x 75mm timber work well as an alternative. The outer frame of the base supports the joists, however they also need to be supported at 1800mm centres across their entire length.

Joist Hangers are a good way of butting timbers together and help to reduce the height of the base above ground level, which is often an issue, particularly when abutting a property.

SUPPORT BEAM

Rather than fix a mid post to each joist an easier method uses a support beam, which is added running just below and at right angles to the joists. The support beam only requires posts at the same spacing as the frame of the base i.e. 1800mm centres thus fewer posts are required. Support beams and the outer frame may be increased to 150 x 50mm for added support.

STAIRS AND STEPS

The treads of the stair are fixed at each side to the stringers, which are wide pieces of timber 225 x 50mm in size, laid at an angle down the outside edge of the stair. Blocks of wood fixed to the stringers can support the treads; the treads may be made from deck boards. It is often the case that wide steps are used, which may even run the whole length of the side of the deck, in this situation additional stringers will be required beneath the treads set every 750mm these can be cut out to follow the shape of the stairs.

LAYING DECK BOARDS

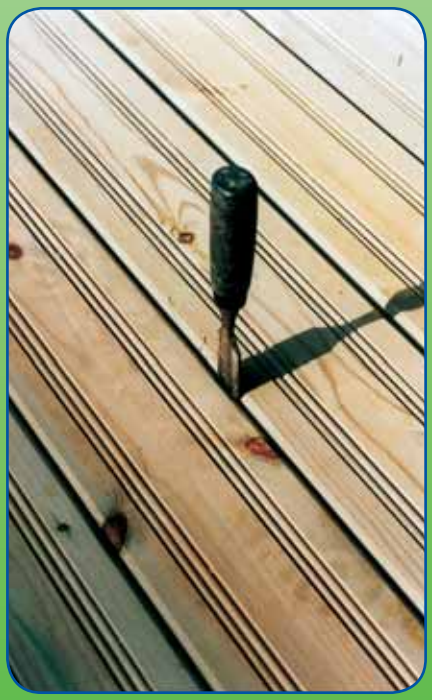
AVS Deck boards are double sided and ideally they should be laid so that the curve of the grain is convex, this helps to avoid the edges cupping upwards. Any boards with imperfections should be turned over, left aside for cuts or used in less prominent positions.

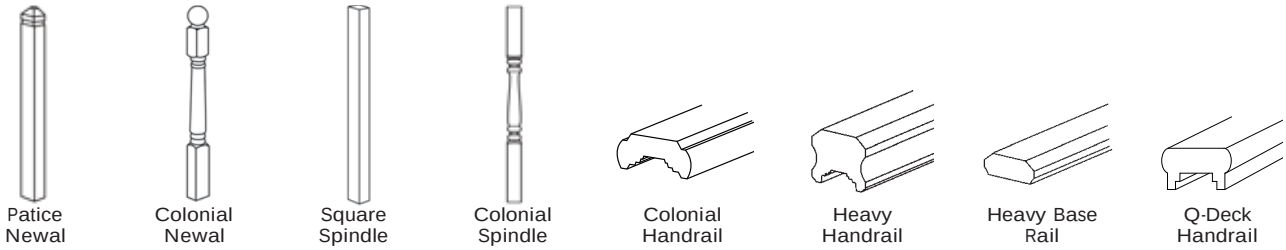
The best fixings for decks are proprietary deck screws that have a multilayer proprietary coating, preventing staining of the boards, which occurs after corrosion with bright steel or B.Z.P.

Deck boards are normally fixed with a drainage gap between each board. If these gaps are too narrow they will clog up with dirt and if they are too wide they will look unsightly and are less practical. New deck boards normally shrink after fitting so the gap that is left during laying may need to be varied slightly depending on the apparent moisture content of the boards, usually it is 3mm leaving a 5mm gap when drying has occurred.

Before you start permanently fixing the deck boards, check that you have the required support from the base and that there is no localised movement. It is very easy at this point to add additional strategically positioned supports to rectify the situation.

During the laying process any boards cut on site will need their ends treated before they are screwed down, AVS recommends using Protek Tough Coat as this will prevent future discolouring and early decay, for more information see the section of this catalogue covering timber stain.





BALUSTRADING

This may be added purely for aesthetics or for safety reasons. Where there is a drop of 600mm it is mandatory due to the risk of falling from the edge of the deck.

The spaces between the spindles would normally be kept to less than 100mm and the height of the top rail should be no less than 900mm, in line with current building regulations.

AVS provide a range of handrails and spindles that may be used to produce balustrading for your decking project. The main choice is between newal posts and spindles, which are of the traditional turned colonial pattern or a minimalist approach using square section newals, and spindles. Handrail is provided in 3 styles and these are interchangeable with either of the spindle styles.

AFTERCARE

Once your deck is completed and in use it should be swept every week, also remove any weeds or plants growing between the boards. If your deck is in a shady area algae and moss may start to grow, to combat this, it should be treated with a deck cleaner; AVS recommends the use of Net-trol.

AVS recommends the use of Net-rol, as a deck cleaner. Once the deck is dry it should be retreated with Textol to add protection for the timber from the sun and the rain.

FAQ

Do I need to cut the spindles to length?
Yes. Spindles have surplus length to allow them to be used with stairs, maintaining a constant handrail level.

RAILWAY SLEEPERS & SOIL RETENTION

STRENGTHS
- **Fast to erect**
- **Cheaper than building walls**
- **Looks attractive**

WEAKNESSES
- **Not suitable for large depths**
- **Shorter life span than brickwork**

INTRODUCTION

Soil retention is a common problem within fencing and garden construction, when there is a need to change from one ground level to another without building a retaining wall. A number of solutions are available from AVS; the following retaining solutions are likely to be the basis of a general garden construction or landscaping project.

For soil retention solutions that are integral to a fence, please see the section on Gravel Boards.

RAILWAY SLEEPERS

Railway Sleepers are extremely versatile and can be used in number of ways for soil retention. They can be used horizontally between pairs of railway sleepers set vertically or can be used horizontally with steel universal column posts.

Another option is to cut the sleepers into lengths and use them side-by-side vertically as a palisade style fence. The resulting structure can be left as a natural finish or the face can be clad with a layer of timber closeboard fencing or similar to tidy the appearance of the retaining structure.

Safety - Whenever you handle Railway Sleepers or any other creosoted material you MUST wear gloves. Due to the creosote secondhand Railway Sleepers cannot be used in public places or situations where frequent skin contact is likely. In these situations choose New Railway Sleepers which are free from creosote

Ralway Sleepers

New Softwood Sleeper

NEW SLEEPERS

Treated softwood these are lightweight, clean and cost effective.

Sawn Oak these are heavier to handle but are clean and really shout quality.

Several sizes of these new sleepers are available.

New Hardwood Sleeper

SECONDHAND SLEEPERS

These are all creosote treated, the hardwood version is the most popular, softwood is also available. These continue to offer great value for money for a range of construction projects.

Secondhand Hardwood Sleeper

DISCLAIMER

AVS Fencing Supplies Ltd cannot be held responsible for the failure of any soil retaining structure or materials involved within it. We are unable to give advice on loadings, if in doubt; a structural engineer should be consulted.

MACHINE ROUNDED – VERTICAL SYSTEM

This method of soil retention from a natural, attractive palisade effect, ideal for use in garden projects and landscaping. Posts are available in different lengths to suit each individual project and the diameter of the posts also varies, although the common size is 100mm. Although it can be time consuming to construct, this method of soil retention is ideally suited to curves.

It is normal procedure to concrete the bottoms of the posts into a trench foundation using lengths of timber nailed temporarily into place for support and strutting. Posts for this type of work are frequently unpointed; however AVS would recommend that pointed posts are used, because they can be driven into the bottom of the foundation trench, if the ground allows, holding the posts in line while concrete is placed around them.

MACHINE ROUNDED – HORIZONTAL SYSTEM

This method of soil retention offers faster erection times with easier future maintenance. Steel Universal columns of 152mm x 152mm are erected at suitable centres, for example 2.4m, then machine rounded timbers are laid horizontally into the slots in the posts. The steel posts can be clad with timber so that there is no clash of differing material types.

AVS recommends that each horizontal be fixed at the centre to the horizontal below with a screw or bolt. Timberlok landscape screws are ideal for this.

LOG ROLL

Ideal for small differences in ground level not exceeding 150mm, is can also be used to edge lawns, borders and paths and adds the finishing touch to garden landscaping projects. This product is available by special order.

DRAINAGE & MEMBRANES

When planning a soil retaining structure it is important to allow drainage for two reasons: 1) Seepage of water through the structure will discolour it over time 2) The build up of water behind the structure will add pressure, perhaps causing the structure to fail.

It is quite normal to consider placing a membrane behind the structure to prevent soil and gravel particles passing through any small gaps. It is also common to backfill immediately behind the structure with shingle to aid drainage. This should ensure that any water could pass out the base of the structure. Provision for drainage may be required.

TIMBERLOK LANDSCAPE SCREWS

Timberlok Screws are designed for joining all types of outdoor timber. They are fast and easy to use as no pre-drilling is required, creating a strong, solid joint; their self-countersinking head ensures a neat finish. Timberlok Screws are highly corrosion resistant, their coating resists corrosion better than galvanised fasteners. Available lengths: 100mm, 150mm, 200mm and 250mm

SECURITY FENCING

STEEL PALISADE

INTRODUCTION

A perfect solution for factory and industrial sites where security is paramount, steel palisade offers the very best in security at an affordable price.

It has a number of benefits, it works well on sloping ground, and it has a low maintenance requirement. Erection is easy; it is a very flexible and versatile fencing solution. Steel palisade can be supplied in a range of Galvanised or Polyester Powder Coated finishes, which means that it can match corporate colours.

SPECIFICATIONS

Height:	1.8m 2.0m 2.4m 3.0m
Pales:	'D' section in 3mm and 'W' section in 2mm and 2.5mm. 17 no pales per bay.
Rails:	2 no 50 x 50 x 6mm (other sizes may be supplied)
Posts:	102 x 44mm RSJ set at 2.75m centres
Pale Fixing:	M8 security bolts as std. or rivets
Rail Fixing:	M12 security bolts
Support Leg:	none
Finish:	Galvanised or Polyester Powder Coated to RAL colours
Gates:	Supplied to match the fence
Other Specifications:	Any other Spec may be produced, those listed above are the most common specifications.

TWIN GUARD MESH PANEL SYSTEM

INTRODUCTION

A robust and aesthetically pleasing welded mesh panel system suited to a wide variety of applications from schools and parks to commercial and industrial property. The 200mm x 50mm mesh gives good visibility through the fence whilst the 8mm diameter twin wires ensure rigidity.

The post has a clamp bar, which fixes with anti-tamper bolts these allow panels to be stepped. This is a fence with very low maintenance costs owing to the strength of the panel and the galvanised and powder coated finish. Manufactured to BS EN 1722 Part 14 Cat 2 & 3.

SPECIFICATIONS

Panel:	2.5m wide
Height:	Panels available as standard in 1.2m 1.8m 2.0m 2.4m
Mesh:	200mm x 50mm
Wires:	6mm vertical and twin 8mm horizontal wires
Spike:	30mm security spikes protrude from top of panel
Post:	60x60x2.5mm
Centres:	2.52m approx
Fixings:	Security bolts with anti-vandal secure pin and threaded inserts
Number of connections per post:	1.80m High Panel – 4 2.00m High Panel – 5 2.40m High Panel – 5
Finish:	Galvanised and polyester powder coated standard RAL colours
Gates:	Supplied to match the fence

V GUARD MESH PANEL SYSTEM

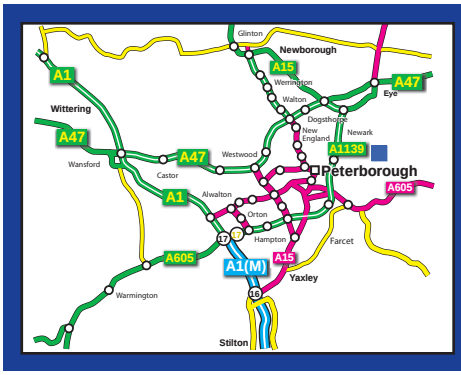
INTRODUCTION

AVS V Guard Mesh Panel System is also suited to a wide variety of applications. The 200mm x 50mm mesh gives good visibility through the fence whilst the profiles ensure rigidity.

The AVS V Guard Mesh Panel offers a cost effective solution for a range of sites. These may be sites where security and robustness are not quite as critical as those for where the Flat Mesh Panel system might be the first choice. It does this without compromising its own integrity and offers an efficient and attractive security solution.

SPECIFICATIONS

Panel:	3.0m wide
Height:	Panels available as standard in 1.8m 2.0m 2.4m
Mesh:	200mm x 50mm
Wires:	5mm vertical, single 5mm horizontal
Spike:	30mm security spikes protrude from top of panel
Profiles:	Four horizontal profiles for 2.0m high and above
Post:	60x60mm R.H.S. Depth in ground 600mm for 1.8m high and 700mm for 2.0m high upwards
Centres:	3.02m approx
Fixings:	Security bolts with anti-vandal secure pin and threaded inserts
Number of connections per post:	1.80m High Panel – 5 2.00m High Panel – 5 2.40m High Panel – 6
Finish:	Galvanised and polyester powder coated standard RAL colours
Gates:	Supplied to match the fence



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Fax: 01733 349537

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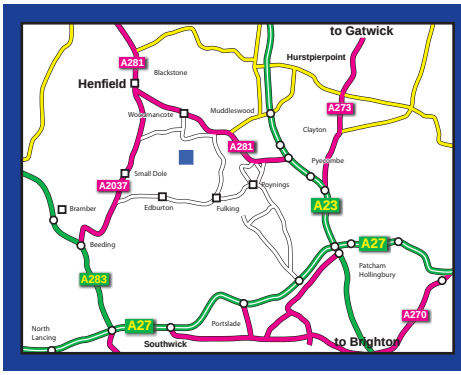
Unit 1
Harlow
CM17 9LH
Tel: 01279 621095 (24hrs)
Fax: 01279 430369
(Visitors by appointment only)



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Henfield
West Sussex BN5 9TL
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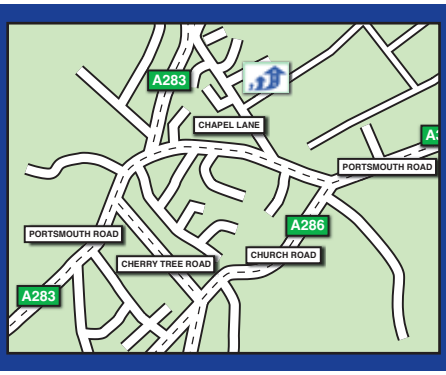
Fax: 01273 493367



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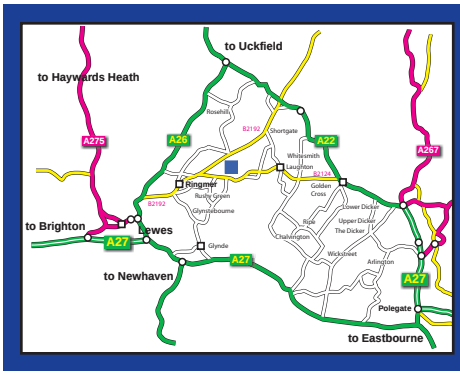

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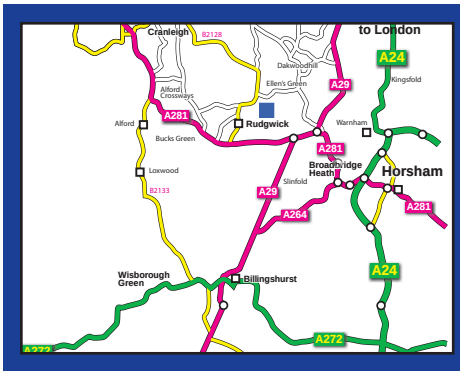

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Fax: 01403 822866

Stansted Sawmill
Stansted Park
Rowlands Castle
Hampshire PO9 6DU
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Map Shows: Branch locations & Free Delivery* area. Delivery is available to other areas by arrangement.

*Free Delivery is offered subject to a minimum order value and exclusions may apply to some areas.

6 Good Reasons to buy from AVS

- ✓ Friendly helpful staff
- ✓ Assistance with product selection
- ✓ Quality Guaranteed Products
- ✓ Competitive prices
- ✓ Widespread branch network
- ✓ Free Delivery on own vehicles

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