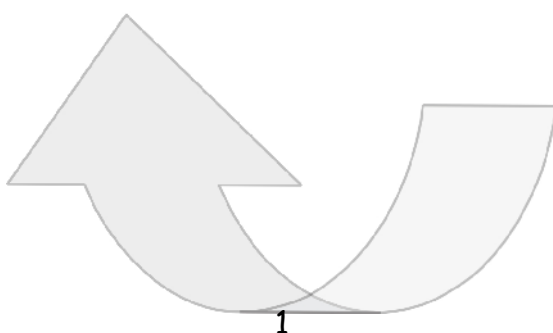
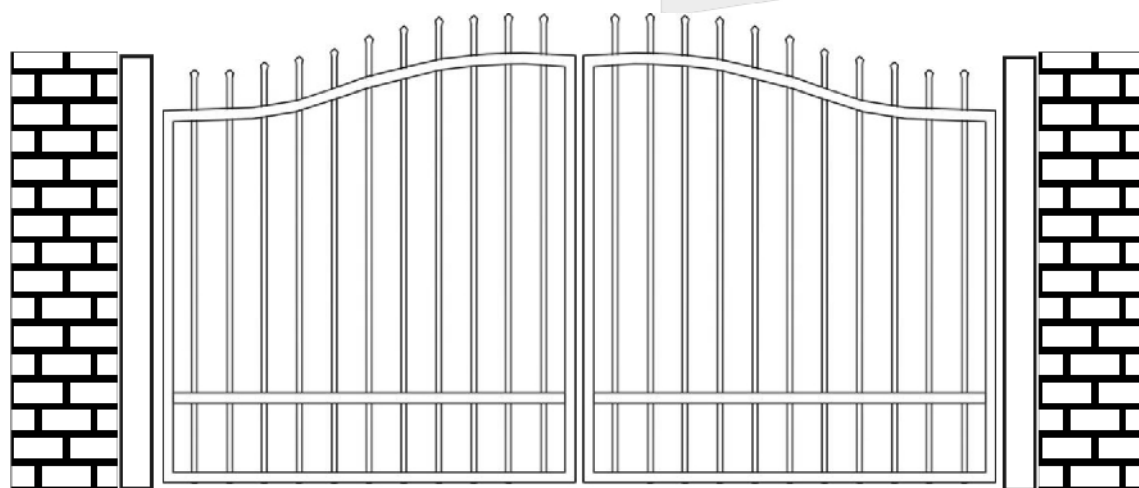




SWING GATE INSTALLATION MANUAL



GENERAL

The ASA range of Do It Yourself (DIY) gates and accessories is designed to be an easy installation for the home handyman. Please consider that the information contained in this manual is general in nature and different site conditions will require some departure from the methods used here.

PLANNING AND SETUP

This part is essential for a good result and plenty of time should be put into making sure and "double checking" measurements. Pen and paper are essential as is a good tape measure and a second head (and someone to hold the end of the tape) would not go astray.

There are many setup methods available, too many to cover here, although in most cases existing site conditions will normally dictate which method you use. The important part here is that first we need to understand the entire width allowing for gates, hinges and posts. This can be relatively simple if you only have a set of double gates as we have already worked it out for you but if you intend to install a side pedestrian gate or fixed panel or perhaps both life gets a little more complicated.

Let's start however with a set of double gates, with each gate 1500 wide. We need to allow for the width taken by two gates, two hinges and two posts plus allow for a clearance gap in the middle.

GATES -	2x1500	=	3000mm
HINGES -	2x30	=	60mm
POSTS -	2x100	=	200mm
CLEARANCE -	1x20	=	20mm
TOTAL WIDTH -		=	3280mm

Simple enough, and if the gates were the 2000mm models then our total width would be 4280mm. But what happens if we add on a pedestrian gate to one side with hinges and clearance gap, a fixed panel to the other side and two more 100mm posts.

GATES -	2x1500	=	3000mm
HINGES -	2x30	=	60mm
POSTS -	2x100	=	200mm
CLEARANCE -	1x20	=	20mm
PEDESTRAIN GATE -	1x1000	=	1000mm
HINGES -	1x30	=	30mm
PANEL (CUT TO SUIT) -	1x1030	=	1030mm
POSTS -	2x100	=	200mm
TOTAL WIDTH -		=	5540mm

Basic maths really. So long as you know the width of each of your components and you include all components you should get your total width. Once you know your total width you can relate it to your site, existing structures (if any) and will be able to determine post positions and therefore post installation style. Listed below are all of the widths associated with our standard provided components. If you substitute any of these components you will need to measure and make allowance for such components.

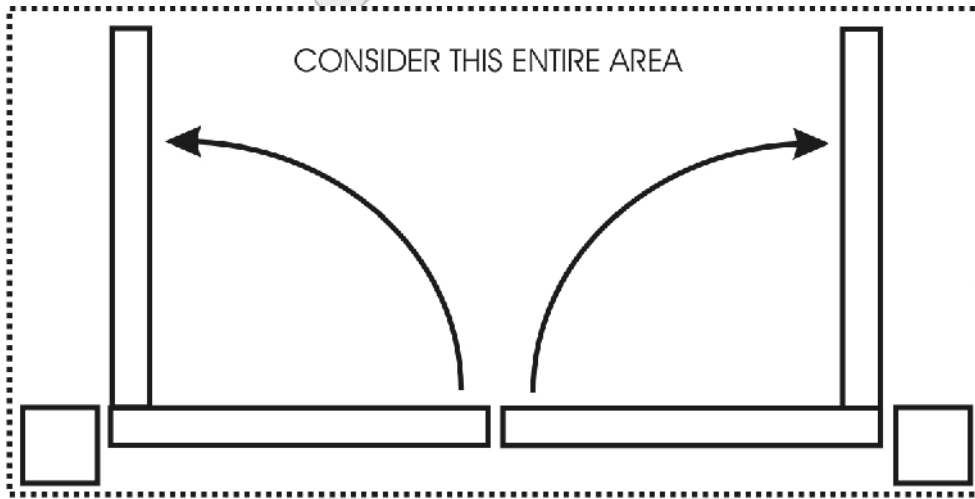
IMPORTANT- Provided product, particularly gates can vary slightly from gate to gate. Because we have clearance gaps and adjustable hinges in some cases we can quite easily handle a few millimetres here and there but if every component in our total width was 5mm oversize then we could have a tight squeeze. Check the widths of your gates and posts in particular for accuracy.

Standard Gate -	1500mm
Wide Gate -	2000mm
Pedestrian Gate -	1000mm
Full Fixed Panel -	2400mm (Can be cut to any size required)
100mm Square Posts -	100mm
50mm Square Posts -	50mm
180Degree Adjustable Hinges -	30mm (Adjustable from 22mm to 38mm)
Multifit Hinges -	20mm (Pedestrian Gates Only)

Now you know your total width, your post positions, and how you will fix your posts you are ready for some real work.

POST INSTALLATION GENERAL

There are quite a few variables when it comes to ways to fix posts but we will basically suggest that you will either bolt to an existing structure (wall, brick piers, etc) or concrete your post into the ground or sometimes both. Either way before you start you need to survey your site for rises and falls and establish the high point in your site. In an ideal situation the site will be perfectly flat and level but experience tells me that there are not many of these. You need to consider the entire total width and opening arc area to ensure that your gate can swing freely to a full 90 degrees in most cases.



Now that you understand your high point you can install your first post at approximately 1530mm to the top of the post from your high point. Why approximately and why 1530mm? Because there are no hard and fast rules here. Your gate is 1500mm high and you need to allow a clearance gap. We use 30mm as it enables us to keep our centre stop nice and low, but 50mm is fine and you can get away with 5mm if it suits. The point is that you must add your clearance gap to the height of your gate to determine your finished height above your high point level.

Once you have your first post installed you then have a level from which to install all remaining posts. There are many tools you can use to get your levels, with the obvious being a spirit level, but others include laser beams, a dumpy or if you are skilled enough the good old water level works a treat.

POST INSTALLATION DETAIL

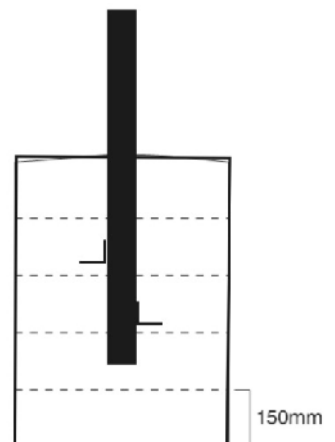
BOLTING TO AN EXISTING STRUCTURE – We have provided brackets (four per post) that you can use if you choose, or you can fix directly through the post itself. Whatever method you choose cut your post to length, use adequate fasteners of correct size and suitable for the structure you are fitting to. Touch up paint has been provided to color match any exposed brackets or fasteners if you wish.

CONCRETE IN – Dig a hole of at least 300mm diameter and minimum 800mm deep (at least 100mm deeper than your in hole post length). Size of hole will vary dependent on soil conditions but as a general rule depth is more important than width and you should aim for one third of the post in the ground. Attach the wall fix brackets that are not being used to the base of the post by Tek screw. These can be fitted indiscriminately as they will be underground in concrete and will give your post a method of gripping the concrete. Using a suitable concrete mix including aggregate pour about 150mm into the hole before inserting your post. You can now pour batches of 150mm concrete checking your post for square, level and correct height as you go and prodding your concrete with a stick to get rid of air pockets. When your hole is full, clean off the area suitably and check again, position, height, square and level of your post.

NOTES ON CONCRETE –

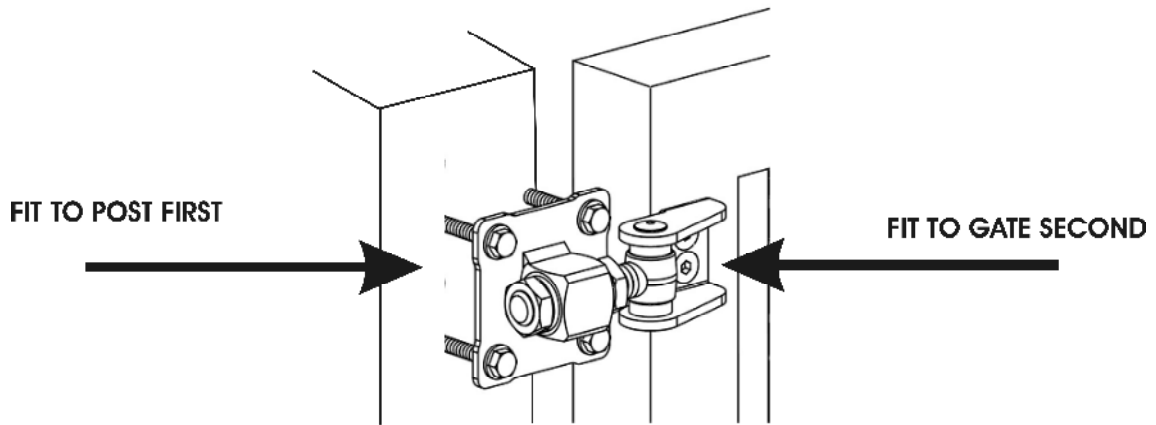
We do not recommend any type of quick dry or rapid set concrete. There are however many good premix packs of normal concrete mix with aggregate available at the hardware stores.

Concrete may cure in as little as 12 hours in hot conditions but true full strength is not attained for up to a month. In general terms your posts should be ready to hang gates from in four to seven days. We would strongly suggest that you allow at least four days for concrete to set sufficiently before hanging your gates.



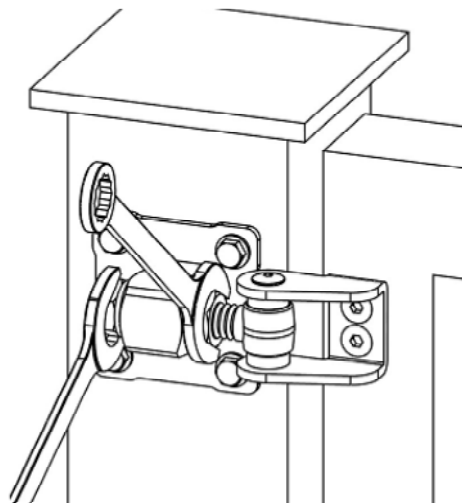
HANGING GATES

Decide on a position for the hinges on your gates. Try to keep the hinges close to the top and bottom of your gate as this will put them in best position structurally. When you have decided the position mark the spots on your posts allowing for the clearance gap under your gates. Using the Tek screws supplied fix the large part of the hinge to the post. Be careful not to use high torque settings that strip the Tek screw when tightening. If you do you will need to either move the position or change the fastener.



When all of your post hinges are fitted you are ready to hang your gates. There are a number of ways to do this. If you are very accurate you can measure and mark your gate, fit the hinge bracket to the gate and then assemble all the parts. You might find it easier however to assemble the hinge so it is complete on the post, use blocks under your gate to lift and hold it at the correct height and then fix the hinges to the gate. Using this method you can also use a 30mm packer to get your gap between post and hinge accurate. Once both gates are hung you can then adjust the hinges for gap and height.

ADJUST FOR GAP AND HEIGHT



INSTALLATION OF LATCHES AND BOLTS

We have provided a D Latch and two drop bolts. These can be installed using the supplied Tek screws. There is a temptation to use the touch up paint at this point to paint the latches and bolts. It will wear off but if you so desire you may do this.