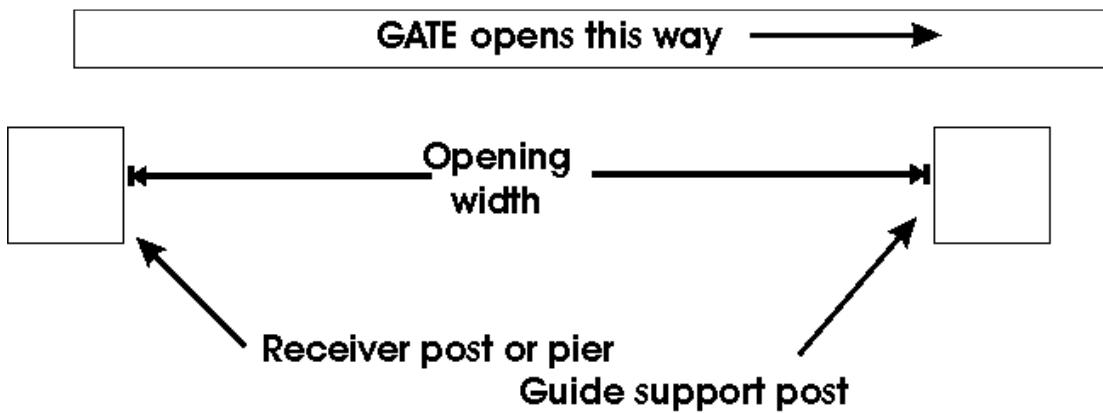


## **Sliding Gate Installation Instructions.**

### **Planning and preparation.**

The more time you spend at this stage the less mistakes made and time wasted doing re-work, so spend a bit of time getting this part right. Any sliding gate has only a few key parts that need consideration - the track, the gate, guide support post or pier, receiver post or pier. Granted, the automation section has many more considerations but just for the moment let's concentrate our planning on the basics as they remain constant whether the gate is automated or not.

The first thing we need is two definable points to determine our gate opening. You may have existing posts, brick or concrete piers. If not you will need to allow for the installation of posts or piers to act as a receiver on closing and guide support.



If you are installing new posts I would suggest 100mm square as a good size and if concreting into the ground a minimum of 600mm in concrete with legs attached.

Once we have determined our two points we can start to look for and record some information

1. The opening width between our two posts or piers.
2. This will give us a width for our gate - usually this is the opening width plus 50mm overlap on the receiver side plus overlap on the guide / roller side, typically 100mm for a manual gate or 400mm for an automated gate.
3. Once we have a total gate width we can check to ensure sufficient room to slide open fully without impeding the opening.

Now that we have worked out where our gate will slide we can determine our track style. In general there are two main variations of track, "bolt down" and "concrete in", but it is fair to say that there are many different variations particularly in the concrete in style. When considering your track type simply remember that the track centre will run 100mm from the inside edge of your posts or piers when using a 50mm thick gate. When your gate is thicker than this you will need to adjust the track centre to suit.

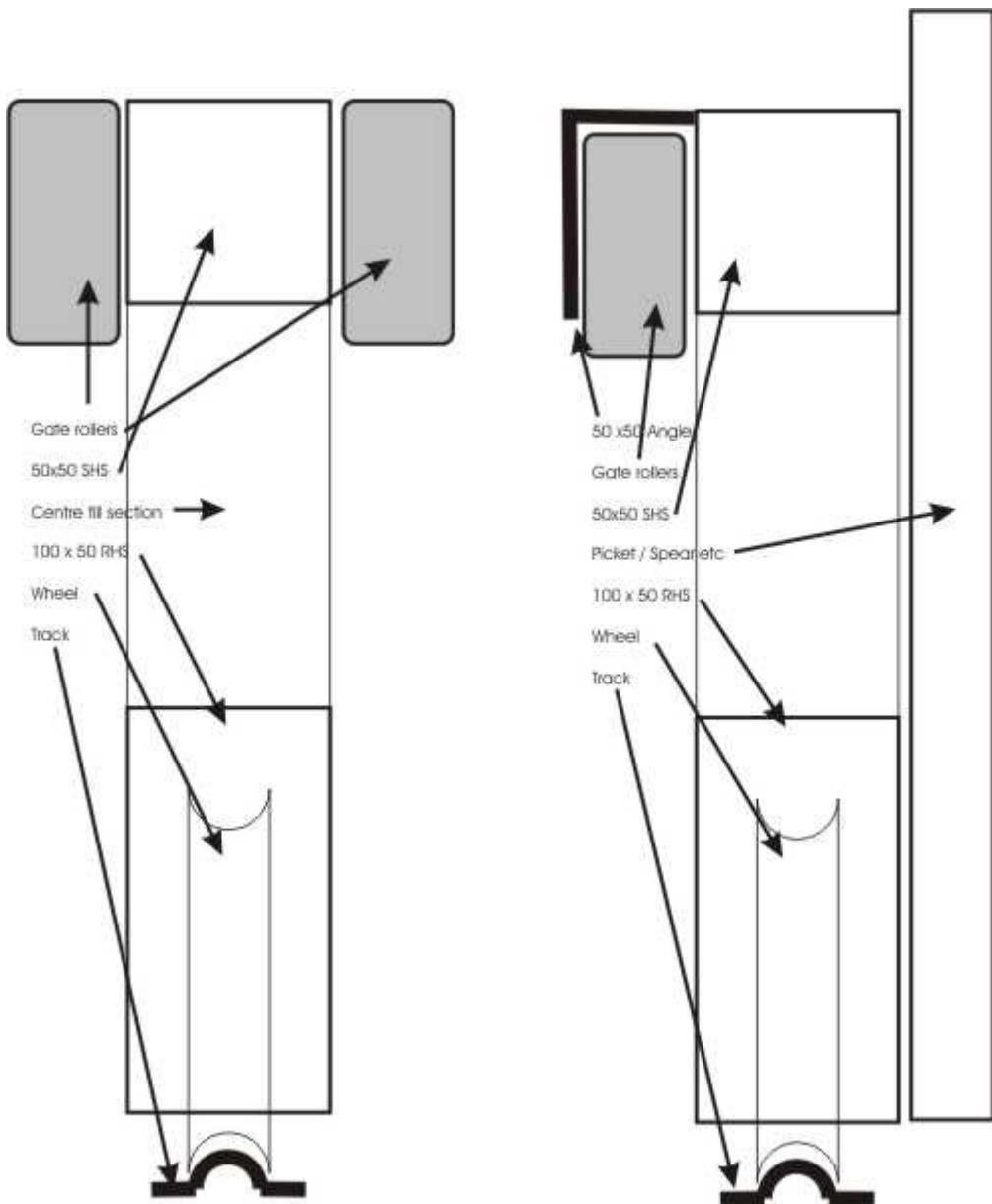
### **Gate Construction.**

We will cover here basic, or more correctly, common gate construction. There are countless ways to construct your gate that would take a complete book if you included drawings etc.

The simplest place to start is the bottom rail of the gate. Given that it houses the wheels the bottom rail is generally 100x50 RHS or 150x50 RHS. Light weight gates can be made from 1.6mm wall thickness whilst heavier gates should be 2.5mm wall thickness or more.

Sides and top are typically 50x50 SHS with a wall thickness to match your bottom rail.

Gate fill is obviously a personal choice. Pictured below are two examples of a gate using a centre fill contained within the main frame and a gate using a front surface mounted fill like pickets or spears.



### Mounting your motor and rack.

The most common method of motor mounting is to bolt down to a pre prepared concrete pad although most motors have a base plate available that can be installed in concrete beforehand with your trackwork making the bolt down procedure even simpler. Use a length of rack to position your motor in relation to the gate and take into account limit switch positioning.

Once you have bolted the motor down securely use your manual override to put the gate into manual mode. Start at one end and use tek screws to fasten your first length of rack centred over the pinion. The rack should not sit directly on the pinion but have a 1mm gap between the pinion and the rack. Slide the gate back and forth to ensure the first length is level. You can now slide the gate along until the pinion is about 800mm from the end of

the first length of rack. Attach the next length of rack into the interlocking point of the first length of rack and position the other end of the rack on the pinion. You should now be able to fasten this length of rack at two points and move along to the next and subsequent lengths. You may need to cut the last length to suit. When all lengths are fitted check the operation of the rack before inserting all fasteners.

### **Ready to power and program.**

At this point I assume you have had your power professionally connected and all other wiring has been completed. My simple suggestion here is that you leave most extras like photo cell beams and keypads not connected, and have all required loops installed until after you finish programming and have your gate running smoothly. Having bells and whistles connected will only complicate matters if things don't go exactly as expected. By having the bare basics makes fault finding much easier.