

# Sliding gate standard design installation/fault finding.

Thank you for choosing Jacksons Fencing. Our high quality fencing products will last for years and give you trouble-free service if you follow the installation instructions below, which are offered as a general guide.

## Tools

Suitable tape measure.  
C Mix gun  
18mm SDS drill bit

Spirit level.  
Battery drill  
Fork lift

String line  
5mm drill bit

Assorted spanners  
SDS drill

## Materials

C Mix  
Grout

16mm studding, nuts, washers etc  
Roll pins or Tech screws

## Method

- 1) Great care must be taken in setting out for installation of sliding gates Drawings should be supplied by the drawing office.
- 2) Hang portals should be set at the correct height & alignment through the portals should be checked before installing the gate.
- 3) See Drawings J1/03087 Sheets 1 to 3.
- 4) Installation of the bottom rollers in the "M" brackets should be checked to ensure that when the gate is fitted the gates natural tendency will be to run directly to the closing position.
- 5) Adjustments to this can be made by twisting the portal or by shims placed into the "M" Brackets.
- 6) Note: The shims can also be used for raising the height of the front rollers.
- 7) After the sliding gate has been installed it should be positioned at the mid point so that the weight of the gate is equally spread over the two hanging portals. At this point the reaction rollers should be lowered until they are 2mm off of the running tube. Care should be taken to ensure that the running tube is in the middle of the portal & not to one side.
- 8) The sliding gate should then be pushed to the closed position, to check alignment, & to see what adjustments need to be made to the tensioning wires. These wires are not adjusted in Manufacture.
- 9) The front wires should be tightened equally, but not over tightened, the rear wires will have a more significant effect on the gate itself & when tightened can lift the front of the gate slightly if required.
- 10) Uneven tensioning can cause the gate to bow slightly.
- 11) The closing portal should be moved into position & fixed after the gate is checked for straightness.
- 12) Push gate to the midpoint, check alignment & fix rear support roller in position.
- 13) The gate should then be pushed to the open position, again check for alignment.
- 14) The reaction rollers should then be fixed in position using tech screws or roll pins.
- 15) Finally the base plates should be grouted in position. If not being automated. Ensure that there is still some studding available, should the portals need to be raised in the future.
- 16) If **automated** the racking should all be loosened off & re-aligned to suit the motor position then locked off.

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## Problem Solving

Before any work is carried out on site the problem should be properly assessed.

Noises. Can be normal and usually originate from the rollers, these may be oiled to reduce.

### Gate off centre catching portals or out of line with slam portal.

1. Check M brackets are in line allowing bottom rollers to be central and straight.
  - a) by use of shims bring rollers in line
2. Check gate is straight.
  - a) If slam portal is slightly bent, the support wires can be adjusted for minor adjustment, (over tightening can twist the gate).
  - b) The gate can be set in the closed position and pulled straight with a vehicle, taking care not to strain front portal.
3. Check portals are in line.
  - a) If slam portal is out of line this can be moved on the slots, by adjusting nut to top off studding and hitting over with hammer about another 10mm of adjustment can be gained, carry this out on the rear hang portal using the front portal as a pivot to double adjustment.
  - b) Adjust reaction rollers as in notes above (with weight of gate spread evenly over both bottom rollers).
  - c) In severe cases portals have to be reset.

### Gate is hitting ground before entering slam portal.

1. Check gate is not bowing down at front of running tube.
  - a) If gate is bowed, gate can be pulled slightly on the tension wires.
  - b) By use of shims under the front bottom roller, gate can be raised (by using 6mm shims 40mm rise can occur over an 8m opening)
  - c) In severe cases portals have to be reset (slam lower or front hang higher.)
2. Rear portal is moving
  - a) Check nuts are tight. If loose, put gate in open position then tighten.
  - b) If studding is moving in concrete, remove studding and fix with C mix (if studding appears to be sandy when removed, renew concrete base)
3. Gate is counterbalancing significantly as it closes past the front hang portal
  - a) Check rear hang portal Reaction rollers are adjusted no more than 2mm from the running tube.

NOTE gate must never be left unsupported in its closed position. The running tube should catch the slam roller by about 3mm.

### Gate is hard to move in manual operation

1. Rollers are adjusted wrong
  - a) Adjust gate rollers etc correctly (ref to set up notes)
2. Check gate for damage.
  - b) If gate has been hit and bent, a bend may be pulled out by use of a truck strap, using the portal, nearby tree or a vehicle as a lever. (providing damage is not extensive)

### Gate is hard to move in auto operation

1. Check racking is adjusted correctly
  - a) Push gate manually, check drive cog is engaging with racking (adjust racking to suit)
  - b) Check height of drive motor is adjusted correctly and gate is not pivoting on cog. (this will also effect manual movement).

### Gate is not closing or opening fully

1. Check safety stops
  - a) Check for reasons for snagging (debris, damage etc)
  - b) Clean photocells
  - c) Check that safety edges have not been damaged.
  - d) Check stop sensors that pick up on the stop flags are lighting up when activated (clean and clear of any interruptions)

For any other Automation advice. Contact Automation workshop.

NOTE any adjustments made may effect another part of the gate e.g. By using shims to lift up the front of the gate will mean Motor will also have to be lifted or racking lowered, and rear support roller may need adjusting.

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