

Groundtracked Sliding Gate Specification

The gate leaf must be constructed using a 120mm x 60mm x 3.6mm wall rectangular hollow section steel with intermediate gate infill posts of 50mm x 50mm x 3mm wall square hollow section at 1700mm centres and 25mm x 25mm x 2mm wall square hollow section main infill bars at 125mm centres.

If required, the gate leaf will be externally clad in 3mm galvanised sheet which will be riveted to the gate leaf frame.

The gate leaf is to be mounted on a 200mm x 100mm x 8mm wall rectangular hollow section which houses 2 axled support wheels with each wheel capable of operating under 14,700 N of downward force.

The gate leaf will run on a surface mounted "V" track which is constructed of a 200mm x 6mm flat steel bolt down plate with a 30mm x 30mm x 3mm wall equal angle steel rail, centrally mounted on the plate. The track is constructed in 2m sections which use track to track jointing spigots to create a continuous rail.

The gate leaf is supported between a double set of removable support posts constructed of 100mm x 100mm x 4mm square hollow section steel. The support posts are bolted to a main drive unit mounting plate constructed of 1000mm x 720mm x 15mm flat steel. The gate is to be held vertically by a double pair of low maintenance nylon guide rollers mounted on a suspension plate at the top of the support posts.

An additional pair of base plate mounted 100mm x 100mm x 4mm square hollow section support posts will be supplied to provide support to the gate leaf when in the closed position.

The gate is to be driven by an electro-mechanical rack and pinion drive unit comprised of vertically mounted motor gearbox arrangement and drive pinion which is meshed with a galvanised steel toothed drive rack mounted on the gate leaf. The drive rack is fitted to the gate leaf through a fully adjustable mounting bracket.

The gate drive unit is to be controlled through a gate drive control board which will accept inputs from push button controls to open / close as well as the safety systems. The control board will be mounted in an IP65 housing for protection of the electrical systems. The minimum speed of operation of the gate will be ½ m/s.

Safety systems required include dual height transmit / receive photo electrical cells (not reflective) and anti crush safety buffer fitted to the gate leading edge with the safety buffer being hard wired back to the control board though robotics cable routed through Igus energy chain mounted in a 6005AT6 extruded aluminium channel with Superseal anti-dust brush.

All steel sections used must comply with BS EN 10210-2 / BS EN 10219-1 grade S355, the flat steel plate to BS EN 10025-2:2004-S275 JR and the galvanised steel sheet must comply to BS EN 10327:2204

All steel work must be grit blasted to Sa 2.5 (ISO 7079:2009) and fully galvanised to BS EN ISO 1461.

All welding must be carried out to BS499-1:2009 and be full welds where applicable.

All open ends of steel sections must be fitted with IP55 protective covers.