

VL30 Gatelock

Installation Guide

FIGURE 1

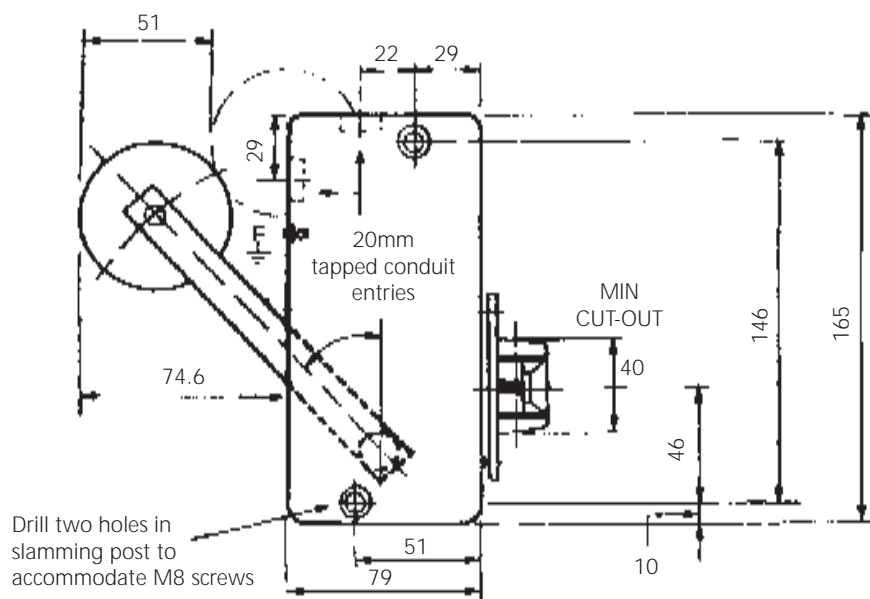


FIGURE 2

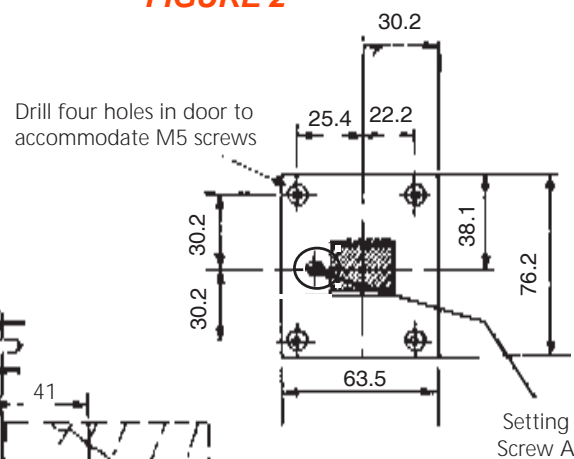
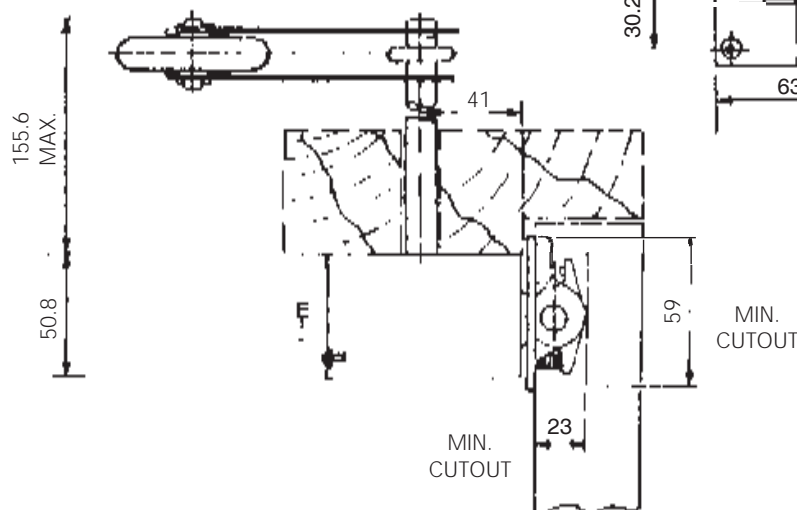


FIGURE 3



Application

The VL30 Gatelock is robustly constructed for installation on lift landings with single swing doors.

Environment

VL30 is suitable for application in all normal locations. Abnormal indoor locations involving water spraying or splashing, chemical fumes and ignitable or explosive gases or dusts require more detailed consideration. If in doubt concerning location or installation, consult the manufacturers.

Operation

The gatelock should be used in conjunction with a suitable retiring ramp. (Dewhurst FR21 is suitable for this application).

When the landing door is closed, the beak enters the lock and engages with an insulated cam which carries contacts that then complete a primary circuit (A). When the ramp clears the lock roller the operating arm of the gatelock falls forward allowing the locking plate to move downward, trapping the beak in position. The beak locking action is accompanied by the completion of a secondary circuit (b), but only if the primary circuit has been made.

Installation

The gatelock must be installed with the beak and the operating arm below the lock centre line and with the conduit entries at the top. Check that the gatelock has been supplied to suit the handing required.

The gatelock must be mounted with the beak entry face in line with the slamming post, but not in front of it. Use dimensional data supplied to mark the fixing positions for the lock on the slamming post and drill holes to accommodate M8 screws. Drill a 20mm diameter hole through the slamming post, to accommodate the shaft. Loosen clamp nuts and remove operating arm from shaft. Pass shaft through aperture ensuring movement is unrestricted. Secure lock to the slamming post with two M8, rustproof, countersunk-head screws together with spring-washers and nuts. Now replace operating arm on protruding shaft, partially tightening clamp nuts.

Using dimensional data supplied, mark the fixing positions and the cut-out for the beak carrier on the swing door. Cut out as required, see Figures 1 and 3, allowing free movement of the beak on its pivot. Secure beak carrier to door using M5, rustproof, countersunk-head screws.

Check that the beak enters the lock smoothly. If not, adjust setting screw A to ensure that it does. Tighten fixing screws and nuts, except clamp nuts.

Move the operating arm along the shaft until the roller centre line coincides with the centre line of the retiring ramp. Set the operating arm at 45° to the lock body, with the roller above the centre line and towards the lift. Set the retiring ramp to move the roller a minimum of 50.8mm and a maximum of 61.9mm towards the lock body as illustrated. Tighten nuts on the clamp to compress fully the spring-washers but do not over-tighten.

If, when the operating arm is positioned on the shaft an excessive length remains beyond the arm, cut off surplus leaving between 6.3mm and 19.0mm of length.

Electrical Connection

Ensure main and control supplies are isolated.

Remove front cover from the lock. Utilise one of two 20mm tapped conduit entries to bring wires into the gatelock. Ensure conduit termination is tight and secure. If flexible conduit is utilised, a separate earth wire must be installed in the conduit and must be securely connected to a suitable earth terminal in the electrical installation. Plug unused conduit entry.

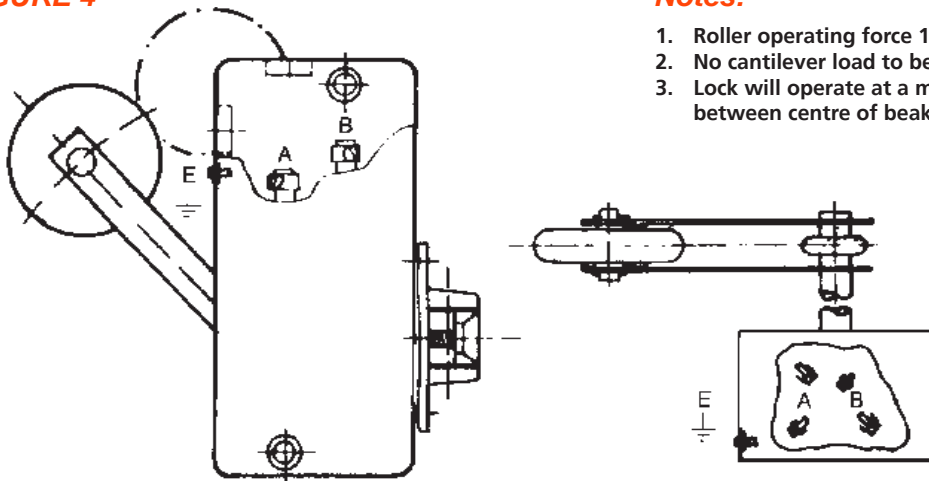
Connect primary circuit using beak contact terminals A and secondary circuit using contact terminals B. Connect earth wire to terminal E. See Figure 4.

Replace front cover and tighten securing screws.

Contacts

Both sets of contacts are self-aligning and have a self-cleaning action with positive knock-off feature.

FIGURE 4



Notes:

1. Roller operating force 1kgf
2. No cantilever load to be applied to shaft
3. Lock will operate at a minimum radius of 381mm between centre of beak and centre of door hinge

Recommended Maintenance

The periodic maintenance required to ensure safe smooth trouble free operation of the latching and locking mechanism fitted to VL series locks.

1. Check lock beak and lock box enclosure are positioned to ensure a free and full engagement in the closed door position.
2. Check lock beak for signs of wear due to misalignment. If excessive wear is present the beak should be replaced and the lock retested.
3. Check that the operating arm is set to approximately 45°. This should give an operating movement of between 50.8 and 61.9mm maximum. Check clamping nuts for correct torque.
4. Check electrical integrity and resistance of the main and prelock contacts, typical resistance 0.2 ohm.
5. Grease operating cam located within lock box enclosure, operating lock box shutter mechanism. Recommend Shell Albinda RL2 or equivalent.

All dimensions in mm