

Operators Guide: The Gibney – Stop/Go Barrier Arm

The Gibney

Stop/Go Barrier Arm for Positive Traffic Management



Introduction:

The Gibney Stop/Go Barrier Arm has been designed and manufactured to:

- ✓ Replace the RP4 “Stop” sign paddle for on-site use
- ✓ Replace the RP41 “Go” sign paddle for on-site use
- ✓ Provide a positive barrier to eliminate road user drive off and drive through on the red “Stop” sign. Road users cannot fit between the end of the barrier arm and the last cone on the centreline threshold.
- ✓ Be installed on a standard NZ Transport Agency, Code of Practice for Temporary Traffic Management (CoPTTM) Manual Traffic Control (MTC) single lane alternating flow control sites – Refer CoPTTM TTM Diagrams - Level Low Volume F1.5, Level 1 F2.14 and F2.15 and Level 2 G1.8 and G1.9.
- ✓ Position the oversized RP4 “Stop” sign which is mounted on the barrier arm, mid lane, is much more visible to approaching road users than the MTC holding a sign on the left hand side shoulder of the road.
- ✓ Ensure that the MTC operator cannot operate the Gibney from anywhere other than the left hand shoulder of the road, thus increasing operator safety and keeping MTC’s out of any live lanes.
- ✓ Have a minimum number of moving parts
- ✓ Be easy to transport to site as it can be dismantled into three relatively light weight components - Two Gibney Barrier arms will easily fit in a ute for transporting to the site.
- ✓ Be easy to install and use with a minimum of operator training.
- ✓ Be more visible for road users, as the oversize “Stop” sign and the barrier arm are directly in the drivers’ line of vision.

In short the Gibney Stop/Go Barrier Arm replaces the MTC’s Stop/Go paddle while greatly increasing safety for both the MTC operator and the road user.

The Gibney (device) Features:

The Gibney Barrier Arm device is assembled from three distinct components being:

- ✓ The barrier arm complete with the oversize RP4 “Stop” sign and the arm itself which has red and white retro reflective stripes (as per a rail crossing barrier arm) along the length across the lane.
- ✓ The RP41 “Go” sign which is mounted on to the top of the mechanism, and
- ✓ The lift, turn and lock barrier arm mechanism which is housed within a standard 900mm high cone. This mechanism includes the barrier arm counterweight from which the MTC operates the device. The base of the mechanism has extensions to allow the device to be weighted down with sand bags to assist with weather conditions or turbulence from passing vehicles.

- ✓ All components are relatively light weight and two or more Gibney Stop/Go Barrier Arms (one for each end of the site) can easily be transported to site in a ute.

Installation and use on site:

The Temporary Traffic Management (TTM) on the site must be fully installed as per the NZTA CoPTTM requirements including advance warning signs, direction and protection signs, delineation (cones) and cone thresholds as per CoPTTM TTM Diagrams - Level Low Volume F1.5, Level 1 F2.14 and F2.15 and Level 2 G1.8 and G1.9 as appropriate to the level of road.

The first cone, on the left hand side of the threshold, adjacent to the end of the taper, is removed and replaced with the cone containing the Gibney mechanism which is set to the open (Go) position.



Depending on expected weather (wind) conditions and turbulence from passing vehicles sandbags may be installed around the base of the mechanism to stabilise the device during use on site.

The barrier arm complete with “Stop” sign is then attached to the mechanism.



This is followed by the attachment of the “Go” sign also to the mechanism.



Depending on traffic conditions this may need to be undertaken under a conventional MTC control using a standard Stop/Go paddle at each end of the site.

When the Gibney has been installed at both ends of the site the barrier arms should both be set to “Stop” and by agreement the MTC’s can commence alternating flow through the site by opening one end by tuning the barrier arm to “Go”.

Note:

1. It is essential that all MTC's are fully trained by the STMS, as Manual Traffic Controllers and in the use of the Gibney.
2. It is essential that both MTC's operating the Gibney and the site STMS MUST be equipped with reliable and fully charged radio telephones.
3. We recommend that all MTC's operating the Gibney are equipped with the latest safety garments to improve visibility – see below.



To shift the barrier arm from one position to another, the MTC operator using the mechanism, unlocks the device, which lifts the arm allowing it to move to either the open or closed position. The MTC operator can easily move the barrier arm by using the counterweight section of the device to pivot the barrier arm. The barrier arm will automatically lock when in position (either Open – “Go” or closed “Stop”).

Positive Temporary Traffic Management for road users while at the same time reducing Risk for the Operator.