
Flooding Solutions

Automated Drop Down

Designed to floodproof areas where physical obstructions inhibit installation of barriers requiring in-ground housing pits, the Automated Drop Down is placed above building openings.

Originally designed for warehouse, loading bays other wide external entrances, Flooding Solutions has advanced the design for use in a concealed

arrangement to protect doorway entries at commercial retail tenancies.

An electric motor lowers the barrier panel into position to provide excellent flood defence to heights of up to 3 metres. The Drop Down is a self-closing device that captures floodwater to seal building openings with no human intervention whatsoever.

Importantly, the Drop Down can be activated at the push of a button on a control panel or even remotely via mobile phone for precautionary deployment prior to flood event.



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Applications

Car park entry ramps
Public walkways
Shop entries
Loading docks
Spill containment

Features

Fully automatic or discretionary closing via control panel.
No installation pit required
Self-closing or discretionary push-button deployment
In-built two stage alarm system for pre-flood and barrier closing warning
Internal or externally mounted
BMS integration.

Benefits

Auto barrier solution without excavation.
Less business disruption when retro-fitting to existing buildings, or provides architects with a viable option to avoid subsurface conflicts on new build planning.
Easy, regular performance testing at any time
Permanently charged 24 volt battery power isolates the barrier from mains supply outage.

Design

Automated Drop Down Flood Barriers fabricated as welded blue steel structural frames Designed for maximum water height. This design is subject to a uniformly increasing fluid pressure with a 2:1 design safety factor based on material yield strengths.

Finish

A & I Coatings vitrethane 630 two pack aliphatic polyurethane min. 50 micron thickness.

Sealing

Dura foam series 6110 E.P.D.M selected profile

Performance

Automated Drop Down Barriers are designed for nominated flood water height and will transfer developed imposed (hydrostatic) loads to adjacent structure.

Materials

Barrier Support Frame

Heavy duty duragal R.H.S – grade C450LO to AS 1163.

Barrier Blade/Cover

One steel floor/coil plate, thickness to project design traffic/flood height loadings.

Barrier Hinge Bearings

Operational Hydraulic Rams
Bare-co welded cylinders with industrial type pin eyes, 50mm to 100mm DIA bore, stroke length as required. Operational force range (14 PSI to 125PSI – dependent on site-specific requirements).

Hydraulic Power Pack Unit

Bucher hydraulics double acting 24 volt D.C model M – 3551, or equivalent.

Operational Control Float Level Switches

Matelec 9006 series/cable length max 40m.

Operational Control Panel

Australian made 240 volt / 24 volt D.C panel including 24 volt battery pack for system function and charger with powder coated cabinet.

Controls include interface of level sensor float level switches with:

- Warning alarms, audible and visual
- Security gates (if required)
- Remote signal (if required)
- Adjustable time step to barrier deployment signal
- System testing function
- B.M.S interface