

Gliderol

**Gliderol Garage
Doors**

**Heavy-Duty
Roller Shutters
Australian Standards**



The GLIDEROL range of Heavy-duty Roller Shutters are designed to close large openings of up to 12m width x 7m height in a single span. Unlike most conventional shutters, it features a spring counterbalance system which eliminates the shutter's dependence on the motor drive to keep the door up. This is an extremely important but often ignored safety feature which ensures that the door curtain will not crash down like a guillotine should the drive chain snap or slip off the sprockets because of stretching due to wear. The spring counterbalance is calculated and made up according to individual door sizes and curtain type.



GLIDEROL Heavy-duty Roller Shutters are available in several curtain types to suit different applications and requirements.



◀ *Steel Shutter*



Panorama Insulated Shutter ▲

TECHNICAL DATA

(A) DRUM ASSEMBLY

(1) Barrel

The barrel assembly is an extremely rigid lateral torque-tube consisting of a steel tube sheathed over a complete length of solid mild steel axle and supported intermediately by suitably-spaced cast iron drumwheels. The size and thickness of the tube and axle is selected according to door widths so that the deflection is within acceptable tolerance.

(2) Springs

The counterbalance springs are manufactured from 8mm to 10mm diameter steel wires of various lengths and coil diameters. One end shall be secured to the axle while the other secured to the drumwheels so that spring torsion is applied as the tube rotates over the stationary axle. The number, type and size of springs used are calculated in accordance with the width, height and weight of each door to achieve optimal counterbalance.

(B) DOOR CURTAIN

(1) Material

A choice of scroll-profiled interlocking slats are available as follows :-

- | | | |
|--|---|--|
| (i) Galvanised steel plain slats
(standard application) | - | 100 x 1.0mm or 1.2mm thick in galvanised, powdercoated or PVF2 coated finish; |
| (ii) `Alfresco' slats
(on request) | - | 100 x 1.0mm or 1.2mm thick perforated galvanised steel slats in powdercoated or PVF2 coated finish; |
| (iii) `Panorama' slats
(on request) | - | 101 x 1.6mm or 2.0mm thick aluminium slats in anodised, powdercoated or PVF2 coated finish; |
| (iv) `Panorama Insulated' slats
(on request) | - | 101 x 23mm thick double-walled cavity slats with polystyrene infills. Available in anodised, powdercoated or PVF2 coated finish. |

(2) End Clips

Proprietary nylon end-clips are secured to alternate slats to prevent lateral movements.

(C) DOOR GUIDES

Guide channels consist of heavy-duty extruded steel profiles of overall dimensions 120 x 100 x 5mm thick steel.

(D) BOTTOM RAIL

Single-length inverted 'T' steel section, with the base of the rail containing a channel cavity to retain a seamless profiled EPDM weatherseal.

(E) DOOR OPERATION

(1) Motor Drive

The drive unit is a suitably sized 3-phased continuous-rated electric motor driving a totally enclosed reduction gearbox with a reduction ratio of 45 to 1. In the event of a power failure, pulling the handchain provided will automatically engage the door to manual mode and allow door operation by the handchain. Whenever the handchain is not pulled, the drive unit automatically returns to auto mode. This unique feature (nicknamed 'Idiot-proof') therefore eliminates the need to physically switch over to manual mode in case of power failure and vice versa upon power resumption.

(2) Control Box

The control box has a built-in thermal overload device to protect the motor from damage. It has push-buttons for 'Up', 'Down' and 'Stop' operations, with a choice of 'hands-on' or 'hands-off' operation, while a limit switch at the drive unit sets the desired upper and lower limits for door operation.

(3) Power Supply Requirement

A 415V, 3-phased isolator is required for each motor. Single phase in some situations can be provided but must be specified.

(4) Mode of Operation

Standard operation is by push-button control of 'Up', 'Down' and 'Stop' operations with a choice of 'hands-on' or 'hands-off' operation (safety-edge is usually not required when the 'Down' operations is in 'hands-on' mode [Deadman switch]).

(F) MAINTENANCE

The counterbalance springs in the door drum are 'greased' for life during manufacture. Guides will require periodic greasing.

Important Note :-

GLIDEROL has an on-going upgrading programme where our designs are constantly being reviewed and improved. As such, the technical data above may be changed without prior notice.

STEEL ROLLER SHUTTERS

Available in 2 types of slats :-

(a) **Plain Slats :**

Rollformed from 1.0mm or 1.2mm thick galvanised steel. Can be powdercoated or PVF2 coated.

(b) **'Alfresco' Slats :**

Rollformed from 1.0mm or 1.2mm thick galvanised steel with the scroll face pre-punched with 2.3mm diameter perforations. For use where some vision and ventilation is required. Available in powdercoated or PVF2 coated finish only.

Suggested Specifications

Roller Shutter where specified shall be electrically operated **GLIDEROL** Heavy-duty Engineered Shutter or approved equivalent in **galvanised/powder-coated/fluorocarbon-coated*** finish of approved colour.

The drum assembly shall be an extremely rigid lateral torque-tube consisting of a steel tube sheathed over a complete length of solid mild steel axle and supported intermediately by suitably-spaced cast iron drumwheels. The size and thickness of the tube and axle is selected accordingly to door widths so that the deflection is within acceptable tolerance. The counterbalance springs, manufactured from 8mm dia. steel wires of various lengths and coil diameters, shall have one end secured to the axle and the other secured to the drumwheel so that spring torsion is applied as the tube rotates over the stationary axle. The number, type and size of springs used shall be calculated in accordance with the width, height and weight of each door to achieve the torque required for optimal counterbalance.

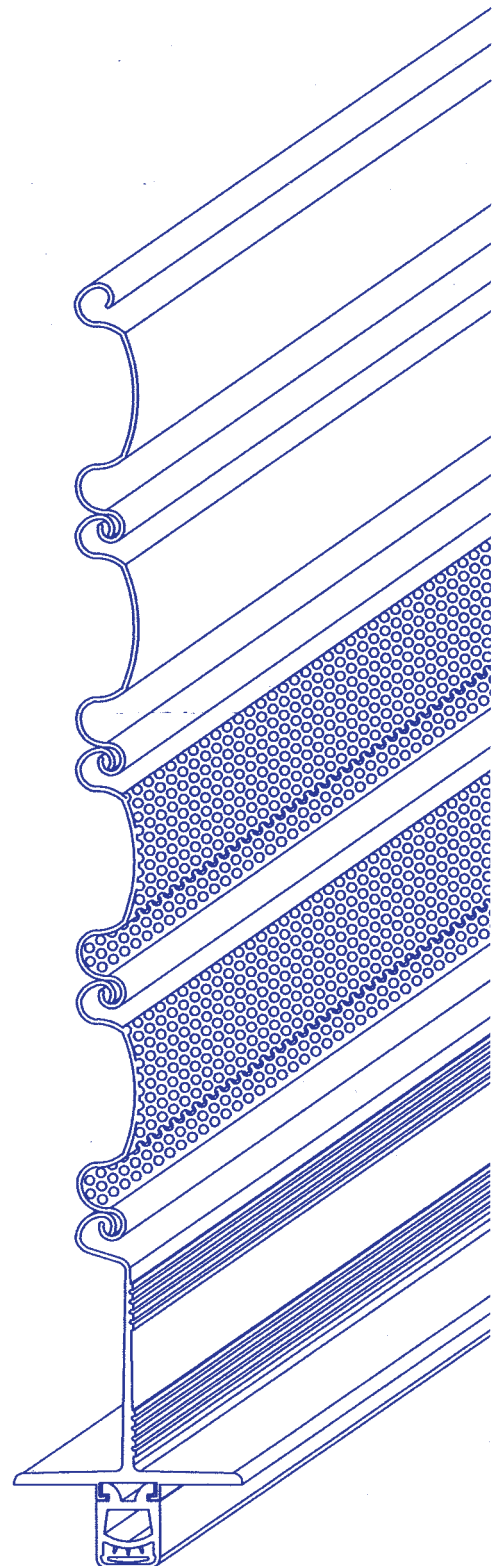
The door curtain shall consist of **[100 x 1.0mm/1.2mm* thick plain galvanised steel scroll-profiled interlocking slats]*** or **[100 x 1.0mm/1.2mm thick galvanised steel with the scroll face pre-punched with 2.3mm dia. perforations interlocking slats]*** with proprietary nylon end-clips secured to alternate slats to prevent lateral movements. Curtain penetration into the guide channels shall not be less than 90mm on each side. The bottom rail shall be a matching single-length inverted 'T' steel section.

The guide channels shall be heavy-duty steel profiles of overall dimensions of 120 x 100 x 5mm thick. It shall be curved at the top for curtain entry.

The drive unit shall consist of a suitably-sized 3-phase continuous-rated electric motor driving a totally-enclosed reduction gearbox with a reduction ratio of 45 to 1. It shall have a chain-operated manual sheave wheel that automatically engages whenever the hand-chain is pulled and disengages whenever the shutter is being electrically operated so that the hand-chain does not travel with the motor. This feature also eliminates the need to physically switch over to manual mode in the event of a power failure. The control box shall be a reversing contactor with a built-in thermal overload feature. It shall have 'Up', 'Down' and 'Stop' push-buttons with a choice of 'hands-on' or 'hands-off' operation. The door operation shall automatically stop at the desired upper and lower limits via adjustable limit switches.

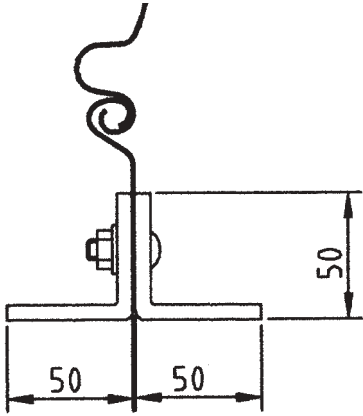
Manually-operated doors shall be provided with a continuous chain-operated gear-reduction handwinder in place of the motor drive unit.

Upon completion of works, the Contractor is required to obtain and furnish a One (1) year full Manufacturer's Warranty for all doors and drive units supplied.

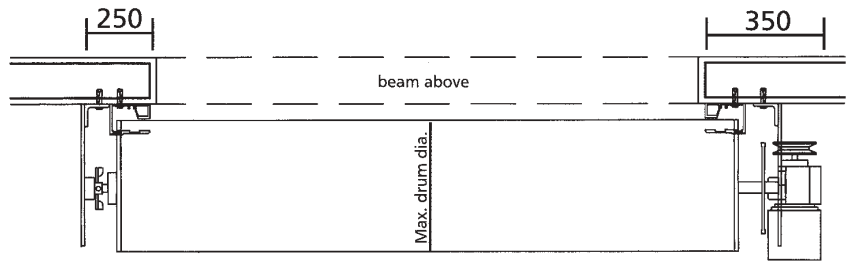


* Select as desired

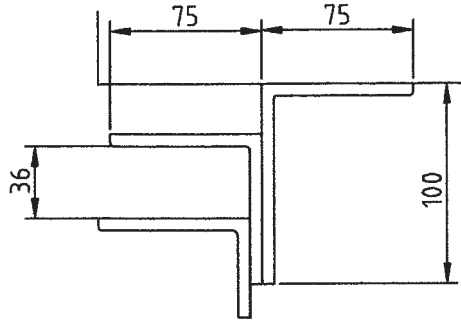
TYPICAL FIXING DETAILS - STEEL ROLLER SHUTTERS



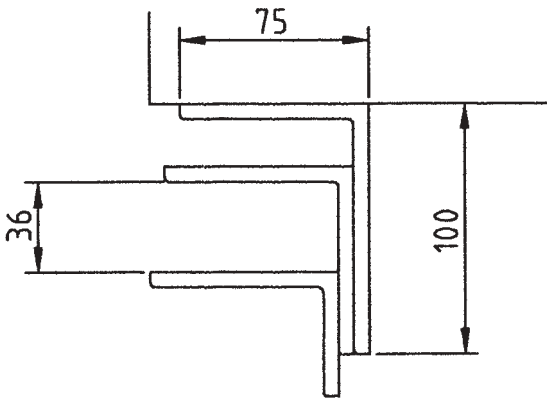
BOTTOM RAIL DETAIL



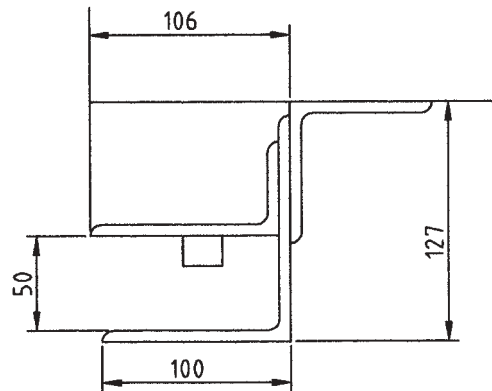
FIXING BEHIND WALLS



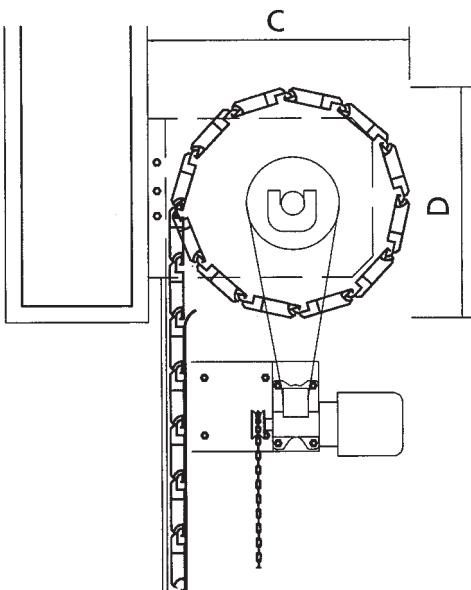
BRICK FIX



STEEL FIX



WINDLOCK GUIDE



SECTION (HEADROOM)

MINIMUM SIDE ROOM AND HEAD ROOM REQUIREMENT (in mm)

DOOR HT (up to)	MAX. DRUM DIA	HEADROOM	
		C	D
3 000	480	580	600
3 500	500	600	620
4 000	520	620	640
4 500	540	640	660
5 000	560	660	680
5 500	580	680	700
6 000	600	700	720
6 500	610	720	730
7 000	630	740	750

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