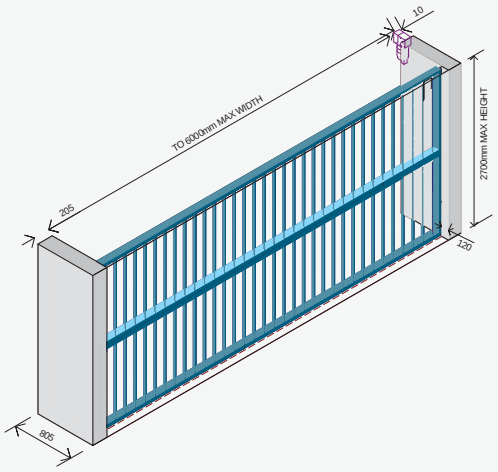
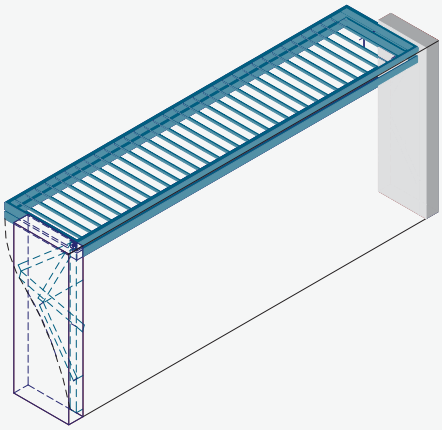
V-Fold Door

Counterweight Doors





The V-Fold Door is a high quality, fast opening door that is perfect for high-use car park applications. V- Folds are specifically designed to meet the requirements of car park entries and exits, and can be supplied as a bar grille or incorporating perforations, woven, expanded mesh or any of the architectural screens that are popular.

FEATURES

- Bar grille design
- Vision/ventilation
- Steel construction (as standard) or aluminium alternative
- No external projection
- Suitable for installation as a fully isolated, free standing barrier
- Noise & vibration reduction
- High usage (up to 20 cycles per hour)
- Safety sensors as standard
- High quality, long lasting components
- Fast opening (300mm per second) & controlled closing speed
- Low maintenance

DOOR DIMENSIONS

- Maximum Height: 2700mm
- Maximum Width: 6000mm

RECOMMENDED SPECIFICATIONS

V- Fold door, consisting of two hinged panels that fold upwards together, complete with side piers and inclusive of all hardware, as manufactured by Airport Doors. Balanced by counterweights and motorised, the door opens into a folded position under the ceiling fully within the building.

NOTE: V-Fold Doors are custom-made to suit the door opening and specific application. Client's design and specification requirements must be clearly stipulated.

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DOOR OPENING

The door is specifically designed to be fitted from wall to wall and from floor to ceiling, operating within the opening. It is important to note that the 'drive through height' is from floor to ceiling minus the thickness of the folded door. Total opening width is the dimension from wall to wall minus allowance of 205mm each side (410mm total) for the door track system. Fascia's and side jambs are not required. The floor must be level over the entire door width and all other surfaces should be plumb and true. The doorset can also be used as a fully isolated, free standing barrier. NOTE: The door can be fitted down sloping driveways with modification to base plates. Refer to Technical Specifications for clearance information.

FIXING REQUIREMENTS

It is the responsibility of the architect/builder to provide a structurally adequate and level concrete floor, specifically under each door side pier, that will carry the design loads. Where the door fits wall to wall, the door piers are also fastened to the side walls for additional stability. See also Technical Specifications.

DOOR FRAME AND HARDWARE

The door frame is constructed using Dual Grade C350LO/C450LO DuraGal® RHS rectangular hollow steel sections or aluminium alloy box sections, braced and trussed as required and designed in accordance with AS4100 (Steel Structures) or Specification for Aluminium Structures 2000 and to comply with the provisions of AS/NZS 4505:2012 (Garage doors and other large access doors) and AS1170 Part 1-2 (Wind Loads). Unless otherwise specified, the minimum design wind load is Region A5, Category 3.

All exposed steel work or aluminium is prepared and shop primed before the application of any specified coatings. The frame, tracks and fittings can be finished prime painted or powder coated. (NOTE: Large doors may not be available in powder coat finish). Other steelwork or aluminium finishes or specified paint systems can also be supplied when specified.

The frame comprises two similar sized panels that are hinged together. The two meeting transoms are spaced by 25mm to avoid a pinch point at the hinge line. The cladding is fitted within the panels. The doorset includes specially fabricated steel side piers that guide and drive the twin panels. The piers also encase the counterweights and drive system which is fitted into the left hand pier as standard. Long life suspension system (leaf chain) & high quality sealed ball bearings is used throughout the transmission.

DOOR TRACK SYSTEM

The door has a patent pending drive mechanism that is contained within the left hand side pier. The door drive axle is guided vertically within a slot built into the pier. Each pier is self-standing and has a base plate area of 205mm wide by 805mm deep. It stands to within 10mm of the full opening height. The pier is designed to be anchored to a level floor pad.

Additionally, using isolation pads, the piers can be mounted entirely isolated from the building, reducing vibration and noise. Each pier is fully encased using pressed metal, removable panel sections and is finished as per the door frame.

In cases where the driveway slopes down inside, the piers require leveled pad areas to each side, or, where this is not possible, additional mounting 'feet' can be supplied to anchor the base of the pier to the sloping floor.

CLADDING

The standard door is a security bar grille with vertical 20 SHS spaced 100mm apart. V-Fold Doors can alternatively (when specified) be clad using light weight materials. Any light weight cladding that allows ventilation, sufficient air flow and visibility is suitable.

NOTE: Cladding weight restrictions apply and glass is not suitable given the doors application.

DOOR SEALS (OPTIONAL)

Typically Bar Grille V-Fold doors do not require door seals. Where doors are solid clad, door seals can be fitted if specified.

LOCKING

V- Fold Doors are self-locking and secure (via the motor).

OPERATION

V-Folds comprise two similar sized panels that are hinged together horizontally and fold together as they travel upwards, coming to rest in the open position under the ceiling. The door operates within the opening as standard, or can be installed free-standing or behind-fix. The door does not protrude past the exterior building line. All V-Folds are motorised and designed for high usage (e.g. up to 20 cycles per hour). The motor is conveniently located to the rear of the left hand pier and is easily accessible. See also Method of Operation.

MOTORISATION

The standard V-Fold is motorised using a three-phase, high quality, high cycle rated motor with variable speed control. The motor is fitted with a manual disengage for maintenance work and a hauling chain for manual operation. Mains power required is 415v 50Hz 10 amps minimum.

Each door is fitted with a rubber safety sensing edge fitted to the inside bottom edge of the door and PE Beam fitted to the side piers on the inside. Additional external photo cells can be fitted as an optional extra.

Depending when the sensors are triggered, they either stop the door from operating or auto reverse.

Standard access control is via push-buttons mounted on the controller, which is typically located along the internal wall. The controller has full logic control with timed self-closing and adjustable opening & closing travel times. NOTE: Speed of operation is 300mm/sec.

The provision of adequate mains power supply and isolator to motor location is the responsibility of the client. Wiring from the isolator and commissioning of the door, motor controllers and any ancillary hardware is by client, unless otherwise stated in writing. Optional extras, such as access control accessories are available upon specification.

For further information see Door Operators & Accessories.

OPTIONS

- 5yr extended warranty on mechanical parts when purchased with a service agreement. Patent Pending 2012216581

AIRPORT DOORS Quality Door Solutions
www.airportdoors.com.au

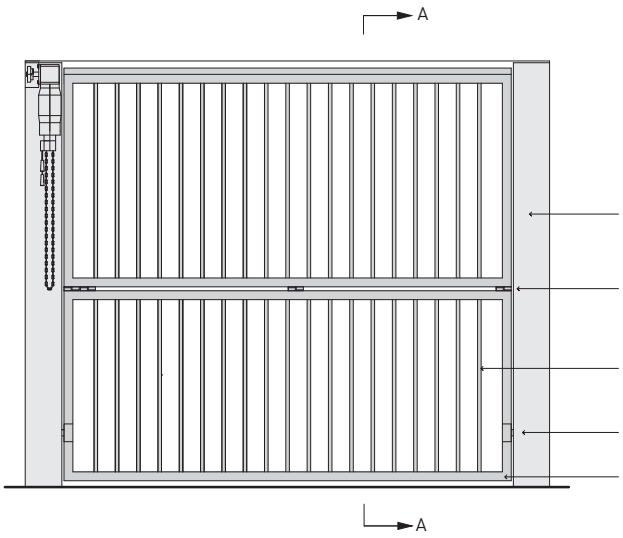
VIC & TAS
69-75 High Street
Melton VIC
PO Box 330
Melton VIC 3337
T: (03) 9971 1444
F: (03) 9971 1466

SA & NT
16 Krawarri Street
Lonsdale SA
PO Box 487
Morphett Vale SA 5162
T: (08) 8326 0466
F: (08) 8384 2501

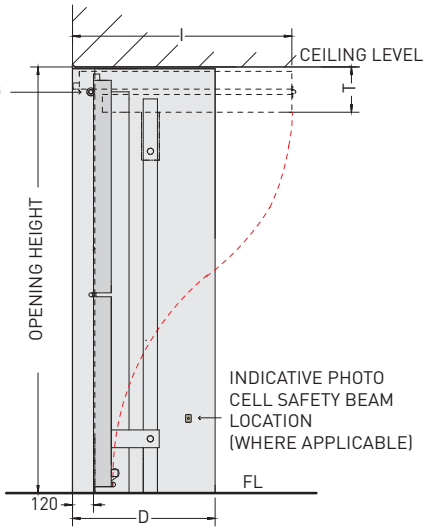
WA
5 Keates Road
Armadale WA
PO Box 906
Armadale WA 6992
T: (08) 9399 5790
F: (08) 9399 5702

V-Fold Door

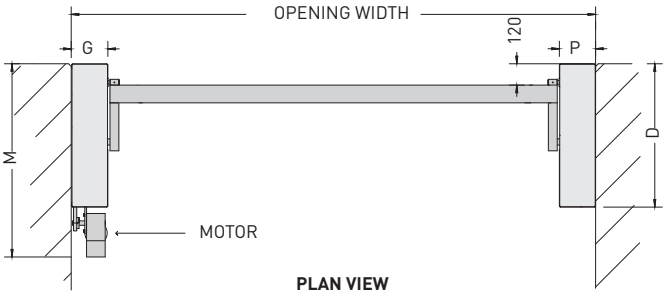
Technical Specs: Counterweight Doors



INT. ELEV.



SECTION A-A



PLAN VIEW

CLEARANCE DETAILS								
HEIGHT UP TO	TYPE	WIDTH UP TO 6m						
		G	P	Hr*	T	D	I	M
2.4 m	El	205	205	0	255	805	1235	1090
2.7 m	El	205	205	0	255	805	1385	1090

Notes:

- V-Folds are designed to fully fit within the opening as standard, however they can also be fitted to the inside of an opening where there is at least 205 side room.
- * Where door is fitted behind the lintel, minimum headroom is equal to 'T'.

KEY

El: Electrically Operated Door (All V-Fold Doors are motorised)

For full KEY reference, see 'Technical Specs and Clearance Details KEY' in the Product Selection Guide section.

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