

# Offset Fold-Up Door

## Counterweight Doors



Offset Fold-Up Doors are a counterweight door consisting of a small upper panel and a large lower panel. Offset Fold-Up Doors can be clad in a variety of cladding materials. They are suited to commercial applications such as counters, restaurants, bars, cafes etc. Offset Fold-Up Doors are a hybrid door which folds in the opposite direction to the standard Fold-Up Door. Where there is insufficient backroom for a standard Fold-Up Door, or where the bottom of the door is required to swing out, the Offset Fold-Up Door is ideal.

### FEATURES

- Counterweight balance
- Wide range of cladding options
- Minimal maintenance
- Long lasting

### DOOR DIMENSIONS

- Maximum Height: 3600mm
- Maximum Width: 6000mm

**NOTE:** Due to its design, the Offset Fold-Up Door is not recommended for high wind areas. Maximum dimensions are a guide only and may vary due to wind loading and cladding. Consult Technical Sales for further information.

### RECOMMENDED SPECIFICATIONS

Offset Fold-Up Door, consisting of two steel framed hinged panels, with selected cladding, and inclusive of all hardware, as manufactured by Airport Doors. Balanced by a counterweight system, the panels rotate, folding up under the lintel. The open door projects inwards and outwards of the opening.

**NOTE:** Offset Fold-Up Doors are custom-made to suit the door opening and specific application. The client's design and specification requirements must be clearly stipulated.

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### DOOR OPENING

The door operates within the opening; therefore all sides must be plumb and true. **IMPORTANT:** Allowance for the thickness of the folded door and working clearance must be made when designing the opening to give the required drive through clearance. Refer to Technical Specifications for clearance information.

### FIXING REQUIREMENTS

It is the responsibility of the architect/builder to provide structurally adequate columns/walls to carry all design loads. See also Technical Specifications.

### DOOR FRAME AND HARDWARE

The door frame is constructed using Dual Grade C350L0/ C450L0 DuraGal® RHS rectangular hollow steel sections, braced and trussed as required and designed in accordance with AS4100 (Steel Structures) 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. The counterweight system is subject to the SAA Crane Code. A minimum Safety Factor of 5 applies to the wire rope sizing and a minimum ratio of 22:1 applies to the pulleys. Sealed ball bearings or bushings are used at the load points.

All exposed steel work is prepared and shop primed before the application of any specified coatings. The steel 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 finishes or specified paint systems can also be supplied when specified.

The top panel of the Offset Fold-Up Door is approximately 35% of the door height.

### CLADDING

The Offset Fold-Up Door can be designed to accommodate and match various cladding materials including glass, steel or aluminium sheet, timber, mesh, etc. **NOTE:** Depending on the weight, size or application of materials, restrictions may apply. See also Cladding Options and Technical Specifications.

### DOOR SEALS

Offset Fold-Up Doors are designed to fit within the opening as standard, therefore a typical working clearance of 15mm on each side and at the top of the door is required, as well as a typical working clearance of 25mm at the bottom of the door. As standard, brush seals are fitted at the top and to each side of the door and a PVC bulb seal is fitted to the bottom of the door. **NOTE:** Standard seals reduce draughts and exposure to weather, however they are not watertight. Alternative sealing such as seals combined with thresholds may be available when specified.

### COUNTERWEIGHT COVERS

Steel counterweights are enclosed and protected using heavy gauge pressed steel covers to approximately two-thirds of the door height as standard. Counterweight covers are finished as per the frame specification and are custom-made and designed to suit the site dimensions.

### PERSONAL ACCESS (PA) DOORS (OPTIONAL)

Where there is no other entrance into the building, PA Exit Doors (opening outwards) can be built into the bottom panel of an Offset Fold-Up Door. Restrictions apply. **NOTE:** PA Doors have a stepover threshold and do not comply as fire exits. PA Doors must be kept shut when operating the main door. Optional 'door closer' and/or 'door monitoring switch' are available and highly recommended.

### LOCKING

Motorised doors are self-locking and are not fitted with additional locks. Manually operated Offset Fold-Up Doors are fitted with pad bolts on the inside as standard. Padlocks not included.

### OPERATION

Offset Fold-Up Doors consist of two hinged panels which fold together as the door is being opened. Using a counterweight system, the bottom panel swings out and the door (in the open position) rests horizontally under the lintel. They require less backroom than Fold-Up Doors due to the opposite folding direction of the panels combined with the top panel being approximately 35% of the door height. See also Method of Operation.

### HAND OPERATION

Airport Doors recommends that Offset Fold-Up Doors are motorised in all cases. This is due to the effort required to open the door.

### MOTORISATION

Motorisation is via a geared electric motor and incorporates a standard reversing starter push-button station (control box). The standard push-button station offers 'Up', 'Down' and 'Stop' functions.

Operator selection is dependent on availability of power, door usage and door access requirements. Motorisation is available in three-phase (415v) as standard, single-phase (240v) or 24DC/240v. Residential applications are supplied as standard with 24DC/240v automated operator. Motorised doors incorporate a manual release mechanism for manual operation (in case of a power outage).

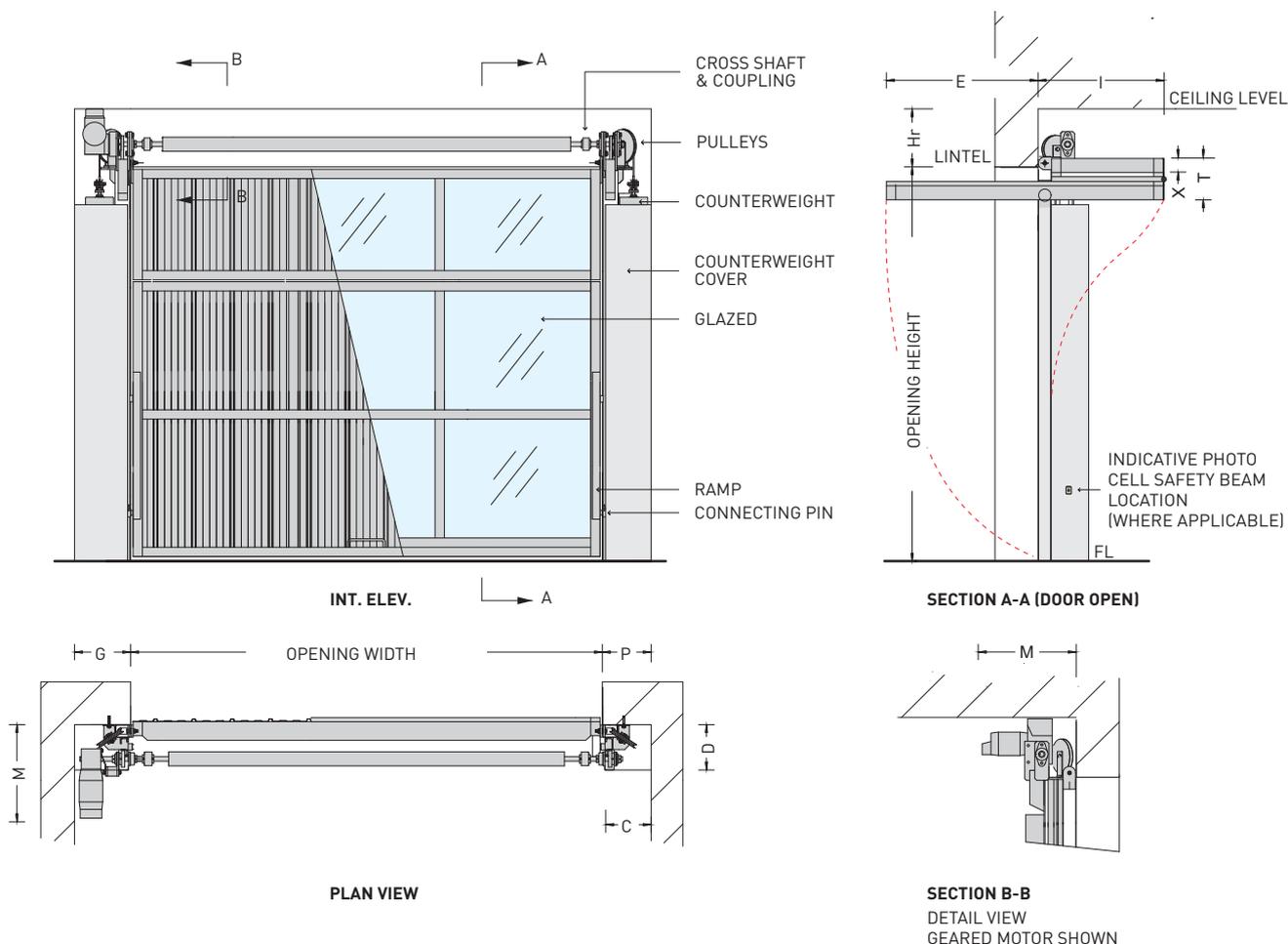
The provision of adequate mains power supply and isolator or GPO (as required) to motor location is the responsibility of the client. Wiring from the isolator and commissioning of the door, motor controllers and any ancillary hardware is by client, unless otherwise stated in writing.

Optional extras, such as high cycle motorisation, battery back-up and access control accessories are available upon specification. **NOTE:** For safety, Photoelectric Beams (PE Beams) are highly recommended on all counterweight doors. Where doors are automated by a radio control, PE Beams are a requirement. A Through-Beam must be used on all government installations (e.g. ambulance, police, CFA stations).

For further information see Door Operators & Accessories.

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## Technical Specs: Counterweight Doors



### CLEARANCE DETAILS

HEIGHT UP TO	TYPE	Width up to 4m						6m					
		G	P	Hr	T	D	X	G	P	Hr	T	D	X
2.5 m	S	P	150	150	210	250	75	P	200	200	250	280	125
	GL	P	200	200	210	280	75	P	250	250	250	280	125
	EL	280	280	350		280	75	300	300	350		280	125
3.6 m	S	P	150	150	210	250	75	P	200	200	250	280	125
	GL	P	200	200	210	280	75	P	250	250	250	280	125
	EL	280	280	350		280	75	300	300	350		280	125

### KEY

C = 'G' or 'P' - 20mm (in most cases).  
(Counterweight Cover Width)

E = Opening Height - 'I'.  
(External Projection)

I = (Opening Height / 3.5) + 70.  
(Internal Projection)

M: Dimension varies with motor location, type and size.

S: Manual Sheeted Door

GL: Manual Glazed Door

EL: Electrically Operated Door

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