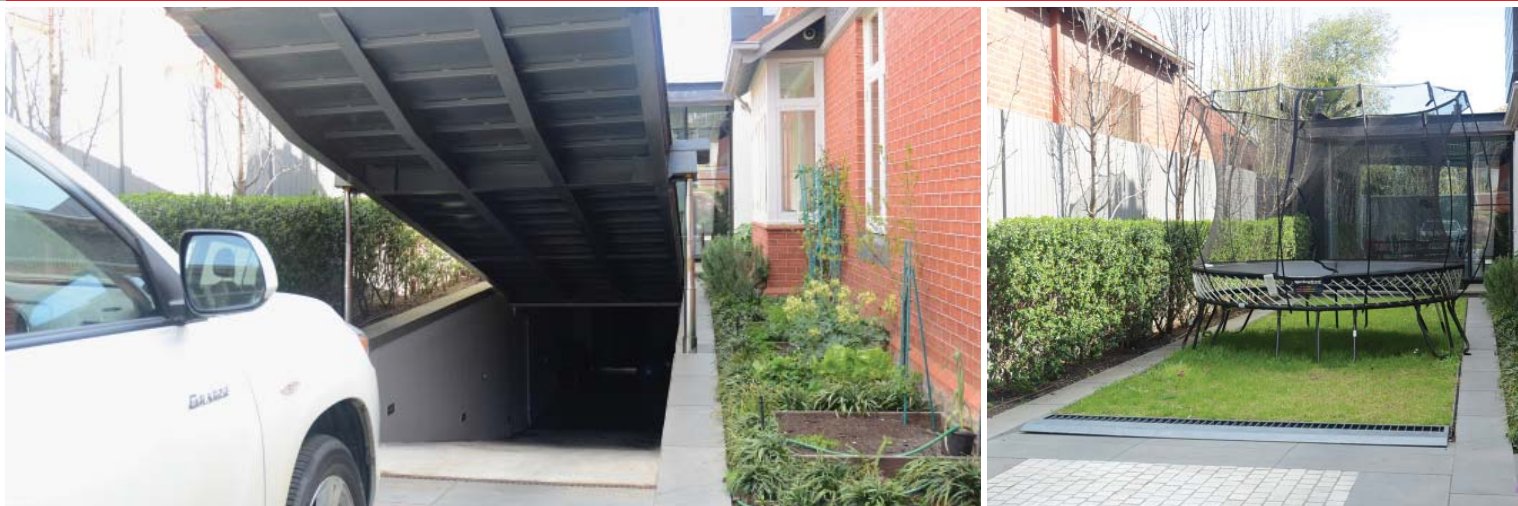


Hydraulic Ramp Cover

Special Application Doors



The Hydraulic Ramp Cover has been designed to maintain normal drive way parking and vehicular access to the rear of a property, as well as access to underground car parking via the ramp.

With property square meter costs at a premium, basement car parking has become a desirable option, and thus so has the Hydraulic Ramp Cover. The Ramp Cover removes the need for a typical ground-level garage from the drive way and yard area, freeing up space. With turf laid on top of the Cover, the drive way can appear as a lawned garden.

FEATURES

- A fully engineered and designed solution to suit the specific site dimensions and requirements
- Various substrate flooring available
- Cover design live/dead load 3kPa or 2 parked cars
- Heavy duty reliable hydraulic components
- Anti-vibration mounting pads fitted under cylinder bases and machined urethane bushes fitted to clevis head pins
- Incorporated safety edge sensors and infrared beam sensors

RECOMMENDED SPECIFICATIONS

Hydraulic Ramp Cover hinged at rear or front and specially designed as per Airport Doors' specifications.

NOTE: Consultation with Technical Sales is highly recommended given the nature of this product and its design requirements.

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In line with Airport Doors' research and development program, Airport Doors reserves the right to change specifications at any time without notice.

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DIMENSIONS

Dimensions are indicative only. Covers are made to measure. The typical Cover is sized to suit a minimum 3100mm wide by 11600mm long ramp. Based on a width of 3100mm, the Cover is 3020mm wide and drive through clearance between cylinders is 2600mm. The length is based on the requirement for transitional slopes to top and bottom of ramp. Modelling of ramp is recommended to avoid low to the ground vehicles from hitting the floor.

Where space permits, the cylinders can be placed in alcoves built into the ramp walls so that full ramp width is utilised.

CONSTRUCTION

The Cover is fabricated from high grade structural steel sections, fully welded and profiled to meet the slope at the top edge. The standard flooring is 5mm steel thread plate with a raised MS angle perimeter. The Cover is fully pre-fabricated and bolts to the opening beam above the basement entry. Therefore during the concrete formwork of the basement, a 250 PFC (parallel flange channel) is supplied ready to be cast into the lintel beam. The ramp requires load bearing concrete pads to take the cylinders. The size and location of these will be indicated on preliminary shop drawings.

The ramp also requires preparation for the casting of 40mm PVC conduits which will take the hydraulic hoses and control wiring from the cylinders to the power pack. These need to be laid prior to concreting and cannot have tight bends which would prevent the hoses from passing. Conduits for low voltage wiring for the Safety Beams are also required. The safety beam conduits can be either built-in at the time of construction or surface laid afterwards.

FINISH

All steelwork is shop primed as standard. Due to size and weight of structure, it cannot be hot dip galvanised. Steelwork can be shop finished using a specified paint system as per structural steelwork finishes. The standard Ramp Cover comes with a shop primed tread plate flooring ready for painting by client. This can be sealed and overlaid with pebble screed or other flexible coverings.

If the Cover is to be tiled or laid with cellular turf, 18mm cement sheet flooring is used instead of plate. **NOTE:** The maximum overlay cladding weight (e.g. tiles, turf, pebble screed etc.) cannot exceed 85kg m/sq.

OPERATION

The Ramp Cover is available in two versions; rear-end hinged (as shown in Technical Specifications) and front-end hinged. It is opened by two multi-staged hydraulic cylinders, which raise and lower the Cover as required.

ELECTRICAL/MECHANICAL

The hydraulic power pack incorporates a three-phase (415v) 7.5kW motor and pump. Mains power of 20 amps three-phase plus neutral is required to the controller location.

NOTE: The pump generates low frequency vibration which is amplified when housed in a basement (due to hard surfaces).

We highly recommend that the power pack be housed separately. Where space permits, an alcove built into the ramp wall can house the power unit and controller. This area can be sound proofed. Alternatively a culvert sump drain can be sunk in the garden or within the ramp itself to take the unit. This will isolate the noise. The cylinders also vibrate as they transition through their stages, however this vibration is dampened at their mountings and connections.

Access control can be by line of sight wall mounted push-button station (recommended), or via key card. For safe operation, line of sight operation (e.g. via a press and hold switch) is preferred at all times. Dual activation of drive way gates and Hydraulic Ramp Cover can be achieved if required. Access via radio control handsets may also be available as an option, however additional safety sensors are recommended.

Travel time is variable; however as slower operation time is recommended, an opening time of 30-40 seconds is to be expected.

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.

An optional three-phase UPS (Uninterruptible Power Supply) unit is recommended in case of power outage. This will activate automatically upon mains power outage and allow for several operations using battery back up. The unit keeps batteries charged at all times.

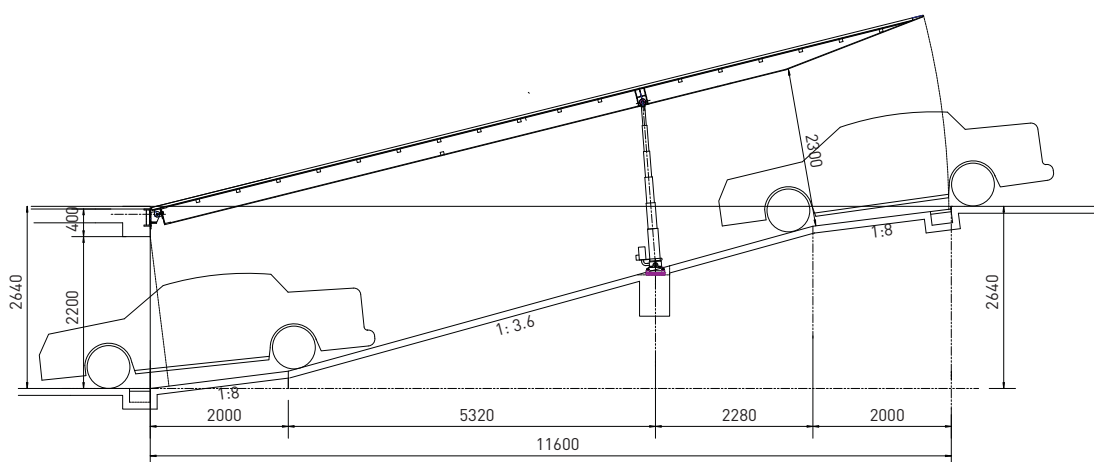
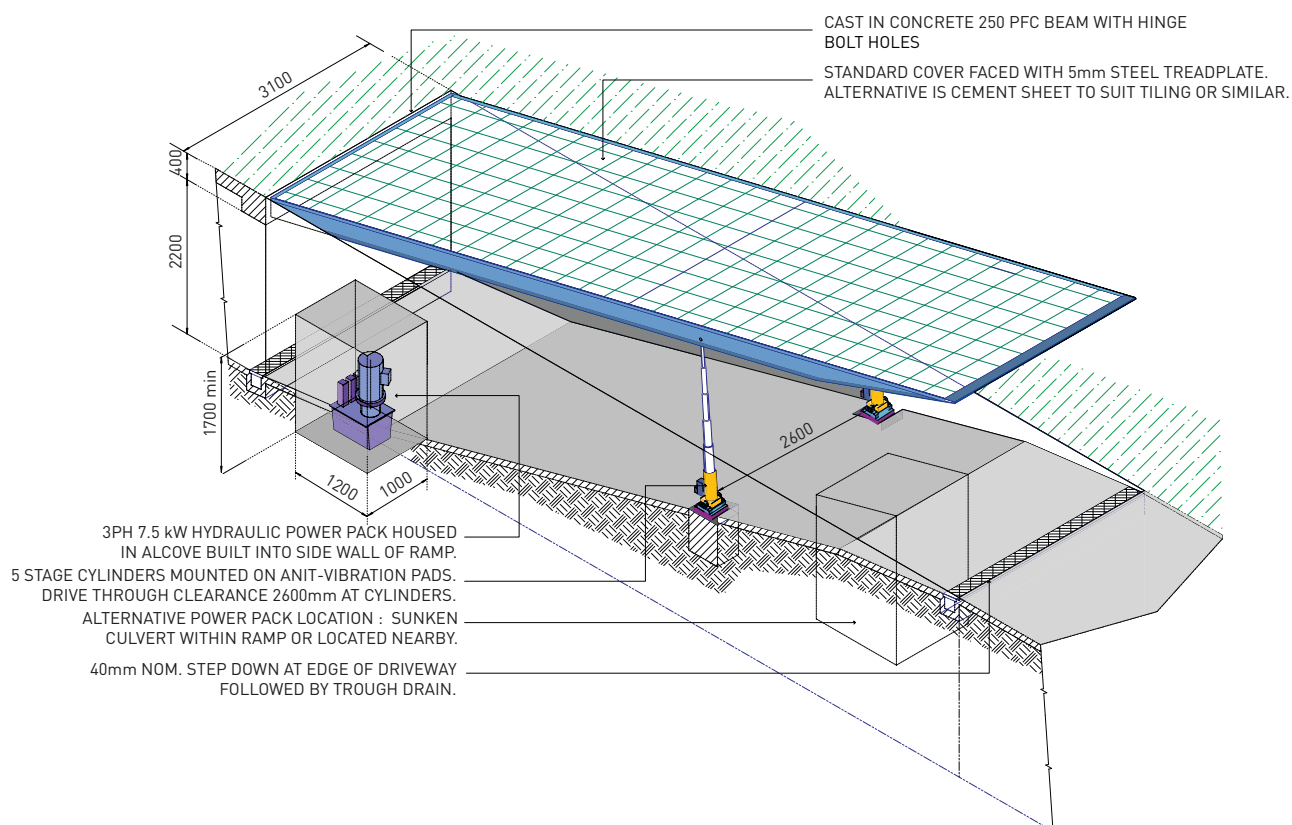
SAFETY

Each installation is assessed for safe operation. Infrared safety beams are used to detect any obstruction in the operational area. Up to four safety PE Beams may be used. PE Beams are fitted to detect large stationary objects on top of the cover. The cover will not operate when a PE signal is broken. In addition, sensor strips are fitted at the pinch points, the leading edge, and if accessible, along the sides of the Cover. It is the responsibility of the person operating the ramp cover to ensure safe operation at all times.

For further information contact Technical Sales.

Hydraulic Ramp Cover

Technical Specs: Special Application Doors



SECTION VIEW : TYPICAL RAMP DESIGN WITH TRANSITION SLOPES

HYDRAULIC RAMP COVER CAN HAVE A POSITIVE SLOPE TOWARDS OUTSIDE FOR DRAINAGE

REAR HINGE MODEL SHOWN - ALTERNATIVE FRONT HINGE ALSO AVAILABLE

NOTE: THE HYDRAULIC RAMP COVER IS IDEAL FOR UNDERGROUND CARPARK ACCESS AND DRIVEWAY PARKING