

Company Information

Aus Pits are an experienced pre-cast manufacturing company, specialising in the supply of custom designed products to all facets of the construction industry, from small subdivisions to major road and infrastructure projects nationwide.

Experience:

Aus Pits are an Australian family owned and operated Company with over 30 years experience in the pre-cast manufacturing industry.

Products:

Aus Pits manufacture a range of custom made products specific to your project requirements. Including but not limited to:

- Stormwater Pits
- Electrical and Communication Pits
- Trade Waste Pits
- Covers including Galvanized Grates and Frames and Cast Iron
- Wingwalls and Endwalls
- Associated Products

Staff Experience:

At Aus Pits we strive for quality, from estimating and design through to delivery and after sales service. Our team of experienced staff, starting with our Estimators, will work with you to provide a competitive and timely quotation. Aus Pits also provide each and every project with a personal Project Advisor. Our Project Advisors have the technical know-how in all facets of our industry, they will follow your project from beginning to end, offering support and knowledge at any time you require it.

QA and Development:

All Aus Pits products conform with Australia Standards, the Aust Road Bridge Code Design and the Specifications of the Local Authorities under a quality program conforming to ISO 9001. This provides the client with the confidence that the product is structurally adequate for the durability required in Civil Construction.

Nationwide Projects and Coverage:

The advantage Aus Pits have over our competitors, is our nationwide coverage. Our locations include:

- Head Office, Geelong (VIC)
- Penrith (Sydney)
- Murwillumbah (Northern NSW)



Our Victorian operation has five manufacturing areas as well as the support of three within NSW.

We have a proven track record for offering the market coverage and support required to meet project deadlines.

Performance:

Aus Pits manufacture for a variety of projects, from small subdivisions to major infrastructure works. We are solution focused, ensuring we deliver what is required, on time and within budget, hence our motto: Solve. Develop. Deliver.

Aus Pits regularly have the pleasure of dealing with many of Australia's large contractors such as:

- Abigroup Limited
- Thiess
- Leighton Contractors Pty Ltd

Aus Pits are your trusted partner in pre-cast solutions...

Aus Pits

Stormwater Pits & Systems

Aus Pits manufacture a range of custom made pre-cast stormwater Pits to suit individual project requirements.

Project levels and pipe penetrations are noted and provided to suit each application. Special requirements for existing services and various cover types are also taken into account.

Aus Pits custom manufacture all pits to include:

- All penetrations required for each pit inclusive of stormwater lines, emergency weep holes, subsoil etc. All penetrations are placed at the correct invert levels as specified on the project drawings to allow the easy connection of pipes.
- Pit heights are custom manufactured to the individual pit levels shown on the project drawings. This negates the requirement for 'make-up risers' and allows a quick and easy installation of the pit and cover.
- Where specified, all haunching requirements are manufactured to suit standard clear openings.
- Plastic encapsulated steel step irons will be fitted to each pit above 1m in depth or to suit the specific requirements.
- All pits will be individually numbered according to the project drawings for easy identification and installation.
- The mass of each pit will be marked on the side of each pit for lifting purposes.
- We provide a wide range of covers to suit stormwater pits, such as concrete, ductile iron and grated covers – refer to covers section.

Larger Structures:

Aus Pits also manufacture pit structures to suit special projects and construction requirements. These include larger or numerous pipe/culvert structures, gas pits, flame trap pits, and energy dissipator pits.

Aus Pits have a construction team and manufacturing area that are dedicated to the building of all larger structures, where the main objective is to meet the Clients specific requirements and project timelines.



Aus Pits

Stormwater Pits and Systems

Standard Pit Sizes:

PIT INTERNAL LENGTH	PIT INTERNAL WIDTH	PRODUCT CODE
450	450	AP-45
600	600	AP-66
700	700	AP-77
750	750	AP-7575
830	600	AP-836
962	522	AP-95
900	600	AP-96
900	670	AP-967
900	700	AP-97
900	750	AP-975
930	835	AP-98
900	900	AP-99
1000	750	AP-1075
1000	1000	AP-1000
1050	1050	AP-1010
1000	1500	AP-1015
1200	900	AP-1209
1200	1200	AP-1212
1300	830	AP-1383
1500	900	AP-1509
1500	1200	AP-1512
1500	1500	AP-1515
1540	700	ap-1547
1800	600	Ap-1806
1800	900	AP-1809
1800	1200	AP-1812
1800	1500	AP1815
1800	1800	AP-1818
2100	600	AP-2106
2100	900	AP-2109
2100	1200	AP-2112
2100	1500	AP-2115
2100	1800	AP-2118
2100	2100	AP-2121
LARGER PITS AVAILABLE ON REQUEST		

*Non-standard sizes available upon request

Transport Roads and Maritime Services NSW Government (RMS)

Aus Pits has a long history of supplying products to RTA projects under the RTA QA Specification R11 for Stormwater Drainage which specifically states that pre-cast units may be used provided they are 'custom made'. Aus Pits products comply with all aspects of this Specification.

With our extensive knowledge of major road projects, Aus Pits have the experience to meet the demands of RTA requirements. Listed are several recent projects undertaken by Aus Pits:

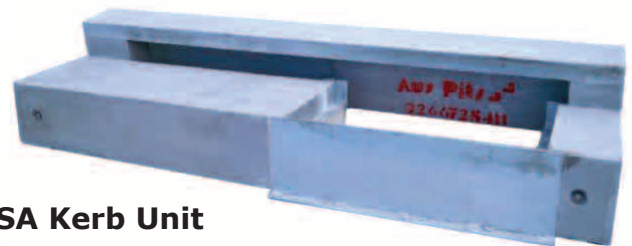
- M7 Westlink
- Lane Cove Tunnel
- Cowpasture Road
- Pacific Hwy Upgrade
- Northwest Transitway
- Great Western Hwy Upgrade
- M5 Motorway Widening
- Ballina Bypass
- Princess Hwy Upgrade
- Hunter Expressway
- Cross City Tunnel
- Banora Point Upgrade
- Camden Valley Way Upgrade

Aus Pits manufacture all pit types and covers to suit RTA R11 Specifications:

- SA Kerb Inlets, lintels & grates
- SF Lintels and Covers
- Depressed Median Gully Aprons/Surrounds: MGSG-Single & MGDG-Double
- Raised Surcharge Grates
- SO grates and type F grates
- Plus many more



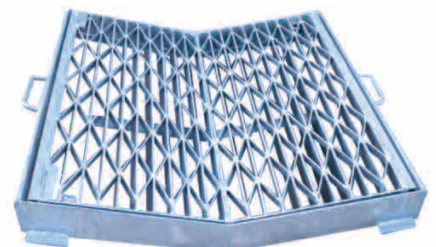
SF Lintel



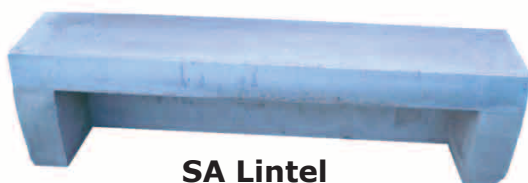
SA Kerb Unit



MGSG Apron



SO Grate



SA Lintel

Aus Pits

Department of Transport and Main Roads Queensland Government (TMR)

Aus Pits are a Main Roads Quality Assured and Registered Supplier, with a strong record of experience in supplying products to Main Roads projects. We are also approved by numerous Queensland councils to supply pre-cast structures into their local areas.

Over the years Aus Pits have developed many moulds and product lines to ensure that we can keep up with the supply and demand associated with QDMR projects no matter how large or small.

QDMR projects that Aus Pits have supplied to include:

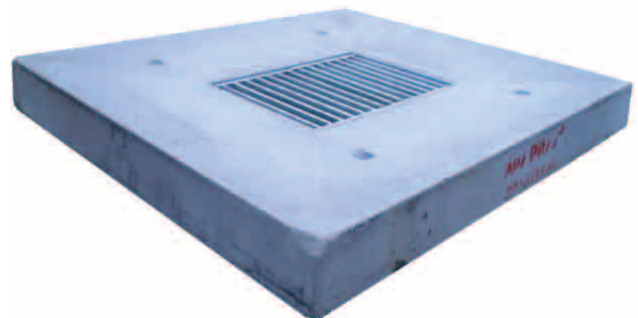
- Gateway Motorway Upgrade Project
- Ipswich Motorway Upgrade Project
- Airport Link Project
- North South Bypass Tunnel (Clem Jones Tunnel)
- Bruce Hwy Upgrade
- Transport Corridor Project – Darra to Springfield.
- Douglas Arterial Duplication (Townsville)
- Gold Coast Rapid Transport
- Legacy Way (Northern Link Tunnel)

Listed are a variety of QDMR pits and products that we can supply to your Project:

- Gully Pits – Lip in line / Kerb in line / Type 28
- Access Chambers & Covers
- Field Inlet Pits
- Field Inlet Aprons/Surrounds: Single and double types available.
- Gully Lintels & Kerb Inlet Units
- Type 28 Lintels & "V" Kerb Inlets.
- Covers to suit all pit types.



Type 28 Kerb Inlets



Field Inlet Type 1 Apron



S,M,L Lintels

Aus Pits

VicRoads Victoria Government

Aus Pits have been a major supplier to Vic Roads projects since the early 1980's. During this time we have acquired many moulds and product lines to ensure that we can meet the needs of all Vic Roads projects no matter how large or small.

Aus Pits have experience with the supply and demand that can come with the building of new freeways, lane expansion projects and major roadworks such as upgrades.

Some of the projects that Aus Pits have worked on over the journey are:

- M1 Upgrade Project
- Deer Park Bypass Project
- Geelong Ring Road Project
- Western Ring Road Project
- Peninsula Link
- Tulla Sydney Fwy

Listed are the most common Vic Roads pits and products that Aus Pits can supply to your Project:

Junction Pits & Covers to suit Standards SD1121, SD1131 etc.

- Side Entry Pits & Covers to suit Standards SD1301, SD1311, SD1321 etc.
- Grated Pits to suit Standards SD1431, SD1411, SD1431, SD1441
- Batter Outlets
- Flushout Risers
- Plus many more, including site specific products.



Variety of Lintels



Surround and Inserts



Side Entry Covers

Territory and Municipal Services ACT Government (TAMS)

Aus Pits are a TAMS approved supplier of custom precast pits and have been involved in a large variety of projects throughout ACT, ranging from specialized projects such as the Airport Upgrade to subdivision projects and major road construction.

With specific moulds to suit TAMS pit and cover range, Aus Pits can supply to your next project in the ACT.

Recent projects Aus Pits have supplied to include the following:

- Majura Parkway
- National Arboretum
- Monaro Highway Duplication
- Horse Park Drive Upgrade
- Cotter Road Upgrade
- Canberra Airport Upgrade
- Harrison Estate
- Bonner Estate
- Crace Estate

Aus Pits can manufacture all pit types such as

- R-Sump / Double R-Sump
- QS-Sump
- Plantation Sump
- Grated Sump
- Manhole
- Covers to suit all types



Aus Pits

Electrical & Communication

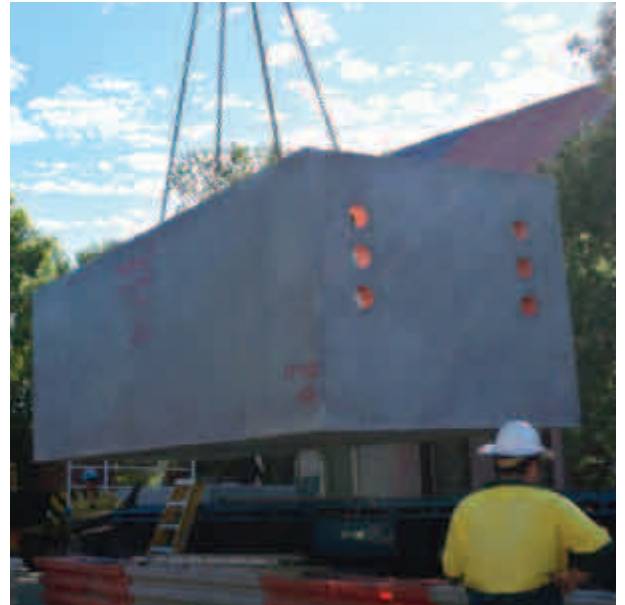
Aus Pits has extensive experience in the supply of all manner and sizes of electrical, communication and data pits.

We are able to offer a number of penetration types and cast-in products to facilitate the efficient installation of conduits, cabling etc. Including:

- Plain penetrations to allow conduits to be grouted into place
- Conduit stubs protruding from the external face of the pit walls
- Slip couplings
- Bellmouth couplings
- Cast in unistrut and cantilevers
- Cable pulling eyes
- Footings around base of pit

All our penetrations and cast-in products are individually cast into the conduit banks shown on the project drawings. We are able to cast different penetration types into the same pits if required such as slip couplings for incoming conduits and bellmouth couplings for outgoing conduits.

Our electrical pits are provided with either plastic encapsulated steel step irons or, where required, steel extendable ladders. We are also able to offer a wide range of covers, from toplabs encasing small hatch covers to large multi-part covers.



Aus Pits

Access Covers and Grates

If you have a requirement for a cover Aus Pits can manufacture and supply it!

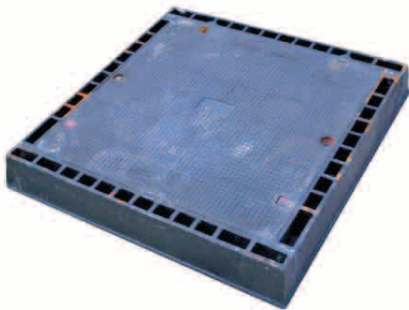
We offer a huge range of covers in a variety of materials such as concrete, ductile cast iron and mild steel galvanized.

Aus Pits carry an extensive range of covers and grates to suit the requirements of a variety of Municipal Councils and Local Authorities.

Products are designed to AS3996 test requirements (see over page for kN ratings) and are suitable for pre-cast and insitu pit applications.

In addition to the standard range of covers, lintels, grates and associated products, Aus Pits have the ability to manufacture modified covers to suit your every application.

Pictured are some of our most common cover types:



Cast cover supply only

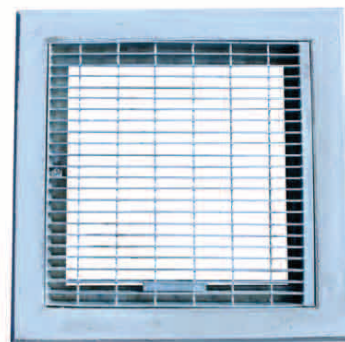


Cast cover encased

Cast Iron Covers: Aus Pits supply and manufacture a range of Cast Iron covers to suit class loadings and numerous sizes (including circular). All cast iron covers can be encased in a concrete surround enabling easy installation.



Grate & Frame supply only



Grate & Frame encased

Grated Covers: Aus Pits supply and manufacture a variety of grated covers in numerous sizes and class loadings. All grated covers can be encased into a concrete surround.

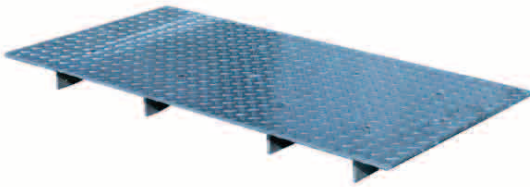
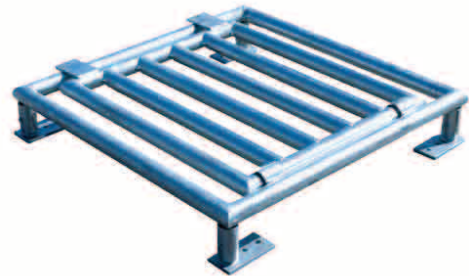
Access Covers and Grates

Concrete Covers: A variety of concrete pit covers to suit a range of sizes and depths are available at our 3 manufacturing locations.



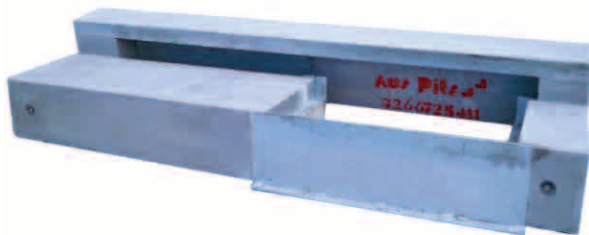
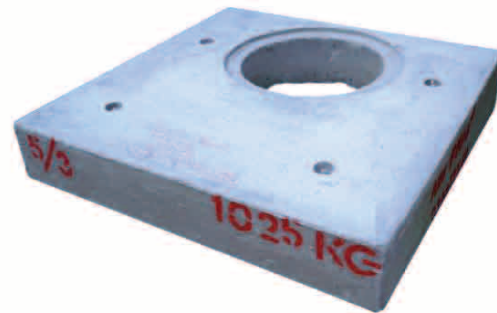
Multipart Covers: Aus Pits have several construction areas dedicated to the manufacture of large multipart covers. Whatever your project requirements Aus Pits will Solve. Develop & Deliver.

Pipe Grilles: Pipe Grilles can be manufactured to specifically suit your project specifications.



Chequer Plates: A variety of chequer plate covers are available, each custom designed and manufactured to your requirements.

Converter/Top Slabs: Haunching slabs are available to convert numerous pit opening sizes.



Kerb Units: Kerb units can be manufactured to suit numerous Council requirements and Standards.

Lintels: A wide range of Council Standard and Authority lintels available.



Aus Pits

Access Covers and Grates

Important notice on Kilo newton loadings:



Class

Kilo newtons

A.....10kN

For use in pedestrian precincts which are inaccessible to motor vehicles.



B.....80kN

Units for use on footpaths or footways where it is possible for a vehicle to mount the footway or for light vehicles, such as park tractors, or livestock to use the pedestrian facility.



C.....150kN

- i) Units for use in areas normally reserved for pedestrians and only occasionally open to vehicles i.e. for delivery or cleaning purposes or in an emergency or where wheel loads will not exceed 3.7 tonnes or -
- ii) Units for use in the carriageways of minor residential roads and cul-de-sacs carrying slow-moving commercial vehicles (generating no impact loading) where wheel loads will not exceed 7.5 tonnes.



D.....210kN

- i) Units for unrestricted use in the carriageways of arterial and other roads which may carry fast moving heavy vehicles where wheel loads will not exceed 5.2 tonnes or -
- ii) Units for restricted use in areas trafficked by slow-moving heavy vehicles (generating no impact loading) where wheel loads will not exceed 10.5 tonnes



E.....400kN



F.....600kN



G.....900kN

Units generally not for use on public roads but for use in areas trafficked by vehicles imposing particularly high wheel loads such as traffic ways on industrial/construction sites or airports.

Fiba-Struct Technology ®

Aus Pits has developed an exceptional new patented product in the field of custom pre-cast products: Fiba-Struct Technology®.

There are several sustainable advantages for your Company when utilising Fiba-Struct Technology®

- Do you promote **Green** Energy Development?
- Do you require 100 year Design life?

Then Fiba-Struct Technology® is the product for you.

- Fiba-Struct Technology® Reduces your Carbon Footprint.
- Fiba-Struct Technology® Offers enhanced Durability.
- Fiba-Struct Technology® Is certified by a Registered Engineer.
- Fiba-Struct Technology® Is cost Effective compared to traditional methods.
- Fiba-Struct Technology® Complies with Australian Standards.
- Fiba-Struct Technology® Structures can be fully customised to suit your project requirements

Aus Pits Offers a large range of sizes to suit Local Council Authority standard drawings as shown in the table below.

PIT INTERNAL LENGTH	PIT INTERNAL WIDTH	MAXIMUM INTERNAL DEPTH	PRODUCT CODE
450	450	2000	AP-FS-45
600	600	2000	AP-FS-66
700	700	2000	AP-FS-77
900	600	2000	AP-FS-96
900	670	2000	AP-FS-967
900	750	2000	AP-FS-975
930	835	2000	AP-FS-98
900	900	2000	AP-FS-99
1000	1000	2000	AP-FS-1000
1050	1050	2000	AP-FS-1050



Aus Pits

Associated Products

Aus Pits manufacture a number of associated products to complete your project requirements. Below are a few of the most common, for any additional items not displayed or mentioned throughout this catalogue please contact our friendly staff to discuss manufacturing capability.



**Trash Baskets
(Custom Made)**



Variety of Lintels



Concrete Covers



Class G Trench Units



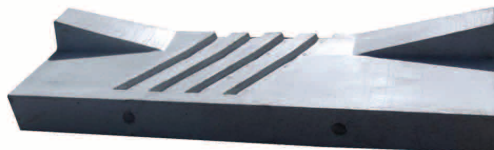
Property Inlet



Step Irons



**Kerb Entry
Catch Pits**



Eco Median Unit



Brass Tags



**Pressure Reducing
Valve (PRV) Pits**



Batter Outlet



**Permanent Survey
Marker (Cone Section)**



**Permanent Survey
Marker**



**Cast Iron
Subsoil Flushout**



**Flushout Risers
(Light and Heavy Duty)**

Aus Pits

Endwalls & Wingwalls

Our extensive range of Wingwall and Endwall products are manufactured to suit a number of Standard Drawings.



Drivable Endwall

As Aus Pits products are custom made all Wingwalls and Endwalls can be built to suit any pipe or box culvert sizes.



Wingwall / Headwall

Aus Pits also manufacture multi-celled units and project specific Wingwalls and Endwalls.



Multi-Cell Wingwall with Stop Gates

Trade Waste

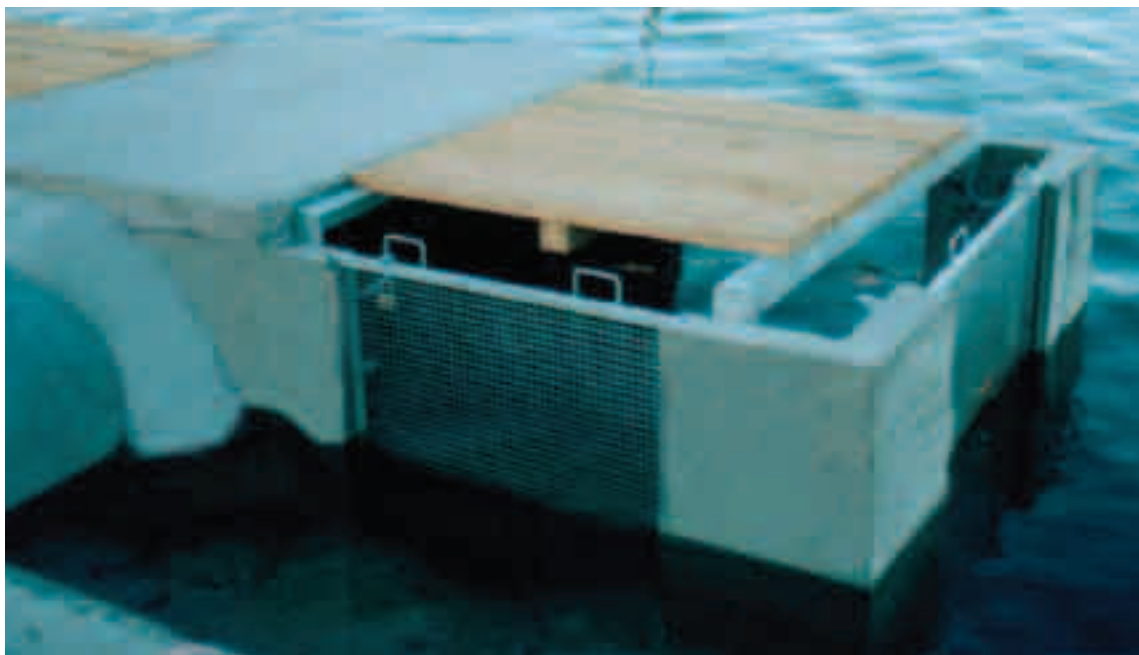
Aus Pits offers a range of trade waste products such as grease interceptor traps, cooling pits and neutraliser pits in a large range of sizes from 500L to 5000L.

As well as Trade Waste units Aus Pits also manufacture:

- Pump Wells
- Grease Traps
- Interceptor Traps
- Gross Pollution Tanks
- Trash Baskets
- Trash Screen Pits
- P.V.C. Lined Pits
- Epoxy Lined Pits
- Sewer Pits
- Multi Celled Units
- Flame Trap Pits
- Silt Pits
- Baffle Plates
- Stainless Steel Pits
- Settling Pits
- Extendable Ladders

Standard Interceptor Sizes:

CAPACITY	SIZE (MM)	DEPTH TO OUTLET (M)	INTERNAL PIT DEPTH NOT INCL COVER
500 LITRE	900 X 600	.0940	1.240
600 LITRE	900 X 600	1.125	1.425
1100 LITRE	1950 X 600	.860	1.160
1100 LITRE	1950 X 600	.945	1.245
1500 LITRE	1950 X 600	1.290	1.590
1600 LITRE	1950 X 600	1.370	1.670
2000 LITRE	1950 X 600	1.702	2.000
2000 LITRE	2100 X 900	1.060	1.360
BAFFLE INCLUDED / PIPE WORK BY OTHER			
OTHER SIZES AVAILABLE ON APPLICATION			



Subdivisions

Aus Pits have been supplying the subdivisional market with custom pre-cast pits for over 25 years nationwide.

The continual growth in this market is a result of the advantages associated with using pre-cast pits as opposed to conventional construction methods.

- Custom pits to suit specific requirements
- Penetration sizes to suit various pipe diameters and locations
- Customised pits enables easy installation
- Reduced labour & materials required on site
- Time saving on site. enabling quicker pipe installation and backfill reducing overall construction time, making stormwater lines active quicker.
- Quality as the products are factory manufactured, quality is controlled.
- OHS Advantages - Holes open less time.
- Subsoil provisions & step irons included.
- Roadway loadings a standard (Class D).



Aus Pits

Growth Area Authority (Victoria)

Aus Pits can provide all structures and covers based on the new Growth Area Authority Standards.

- B2 Cast Iron Galvanized Grate & Frame as per drawing number figure 012
- SM2 Cast Iron Galvanized Grate & Frame as per drawing number figure 013
- Aus Pits Light Weight Covers

Aus Pits Light Weight Covers:

Aus Pits have designed and manufactured a durable lightweight pit cover. These covers are manufactured from a lightweight composite material, as opposed to traditional materials such as concrete and steel, making it easy to install.

The benefits of Aus Pits light weight covers include:

- Installation can be carried out by 1 person without the requirements of heavy lifting machinery.
- Lightweight materials reduce the risk of injuries associated with lifting strains & crushed fingers.
- Secure locks prevent unauthorised access. The Locking system is designed around the standard Gatic lifter, this eliminates the requirement to purchase and transport several lifting devices.
- Cost saving benefits: reduced labour, competitive pricing and substantial design life.
- Class B rating, as per Australian Standard AS3996-2006.



**SM2 Cast Iron Galvanized
Grate & Frame**



Aus Pits Light Weight Covers

Project Management

Aus Pits believe Project Management is the key area in delivering a successful project to the Client.

Aus Pits provide a Project Advisor who has a proactive role in each Project. This role will be critical to the smooth flow of supply of products and to ensure that project information is controlled.



A Project Advisor will:

- Continually monitor the design plans/revisions direct with Project Designers.
- Continually monitor any design/construct issues that arise on site and have input into alternative structures.
- Review, implement and maintain quality procedures to ensure compliance with the contract Specifications.
- Be on site whenever required, depending on Project demands.
- Develop an information stream with Site Engineers, Managers, Supervisors and the Project Designers.
- Develop individual 'shop drawings' directly from the Construction Drawings provided, for the purpose of approval and manufacture.
- Co-ordinate production and supply requirements with our Production Managers and set daily pouring schedules to suit your construction program

Delivery

Aus Pits provide all deliveries to site.

- Delivery is co-ordinated to the construction program.
- An Aus Pits Project Advisor will become the link between the transport and the Site Foremen for all deliveries.
- Delivery will occur on flat tray trucks; in most cases a crane truck is dispatched.
- Delivery will be organised to accommodate full loads, however Aus Pits recognise that there is some times a requirement for an emergency delivery, in which case other arrangements can be made.



Aus Pits

Technical Publications

HANDLING AND INSTALLATION GUIDE

Site Preparation – Excavation, Foundation and Bedding

Before the pit arrives on site, the site should be prepared accordingly by excavating to provide clearance from all external faces and to ensure that there is enough room to work around the outside of the pit. Additionally, the appropriate foundation must also be prepared. Pits must be installed on a stable, well-compacted foundation to avoid future settlement (subsidence).

Should any softening or loosening occur following excavation, the soft/loose materials must be removed and replaced with a suitable material e.g. single size coarse aggregate to the requirements of the relevant authority. The compacted depth of replacement material should be uniform and sufficient to ensure that the minimum specified bearing capacity is achieved. Our pits typically require a minimum bearing capacity of 100kPa. In areas where this cannot be achieved please contact us to discuss other options such as external footings that may be required.

Once the foundation has been stabilised, the bedding material of sand or gravel should be placed onto the foundation to a uniform depth. The bedding is designed to provide uniform support across the whole underside of the pit.



Pit positioned on leveled bedding material

Bedding material and compaction should comply with the project specific drawings and the relevant authority specifications. It is recommended to consult with the site engineer for bedding material and compaction requirements; especially where unusual ground conditions may occur.

Technical Publications

General acceptance is an approved bedding material compacted to a thickness of not less than 80 mm on an earth foundation or 150 mm on a rock foundation. The invert level of the pipe and the base thickness of the pit have to be considered when preparing the bedding (placing, leveling and compacting).



Checking the base

Lifting

All Aus Pits precast units are supplied with cast-in lifting points (either lifting holes or proprietary lifting anchors) to enable safe handling. To prevent stress and possible concrete cracking, all units must be handled using only the designated and marked lifting points and associated lifting pins or clutches as required.

When using Aus Pits lifting pins always ensure that the **Aus Pits lifting procedure** is followed for correct installation of the pins into the lifting holes. When clutches are used always ensure the clutch matches the lifting anchor e.g. use a 1.3 tonne clutch only on a 1.3 tonne anchor.

A spreader beam is recommended for lifting to prevent chipping (see photo). It is the contractor's responsibility to ensure an appropriate spreader beam is used. All lifting equipment is to be provided by the contractor.



Lifting with spreader bar

Technical Publications

Pit installation

While the relevant authority specifications should be consulted and followed our pits are typically installed as follows:

1. Check that the foundation and bedding material have not been disturbed.
2. Lift the pit into position using lifting pins or clutches as necessary. It is the contractor's responsibility to ensure safe lifting practices are followed. Ensure that the pit is oriented correctly for the pipes to be connected to the pit.
3. Pipe jointing to pits requires the following steps:
 - a. Place the pipe into the penetration, cutting the pipe so that it is flush with the internal wall of the pit.
 - b. Seal the wall with an approved cement mix. It may be necessary to render around the pipe on the inside of the pit in order to achieve a quality flush finish with the pit wall. Other grouting materials might be required to suit harsh soil conditions, such grout can be specified by the site engineer, site supervisor or relevant authority.
4. Aus Pits provides step irons installed in pits where required by the relevant authority. When working inside pits always ensure that the step irons are secure before using. The steps that are installed in our pits are only designed to be installed once. Should the removal of steps be required to facilitate any works inside the pits it is the contractor's responsibility to ensure that the steps are secured in place chemically when re-installed.



External Joints



Internal Joint

Technical Publications

Backfilling

When the pits and pipes have been laid and sealed, backfilling can occur. The material used for backfilling the pit is typically the same as the material used for backfilling the pipeline however the relevant project or authority specifications should be followed.

Evenly place and uniformly compact the material ensuring that components and joints are not disturbed or displaced.

Backfill with the aim of minimal or no subsidence after completion of the works. Compaction should be to the satisfaction of the site supervisor or the relevant authority.



Compaction of backfill around pit



Ensure even placed material

****Disclaimer – This document is intended as a guide only. Handling and installation of Aus Pits products should always be to the requirements, specifications and safe work methods of the project and/or relevant authority. Aus Pits will not be liable in any way for any adverse effects resulting from handling or installation, any misuse of our products or practices of third parties that result in injury or death.**