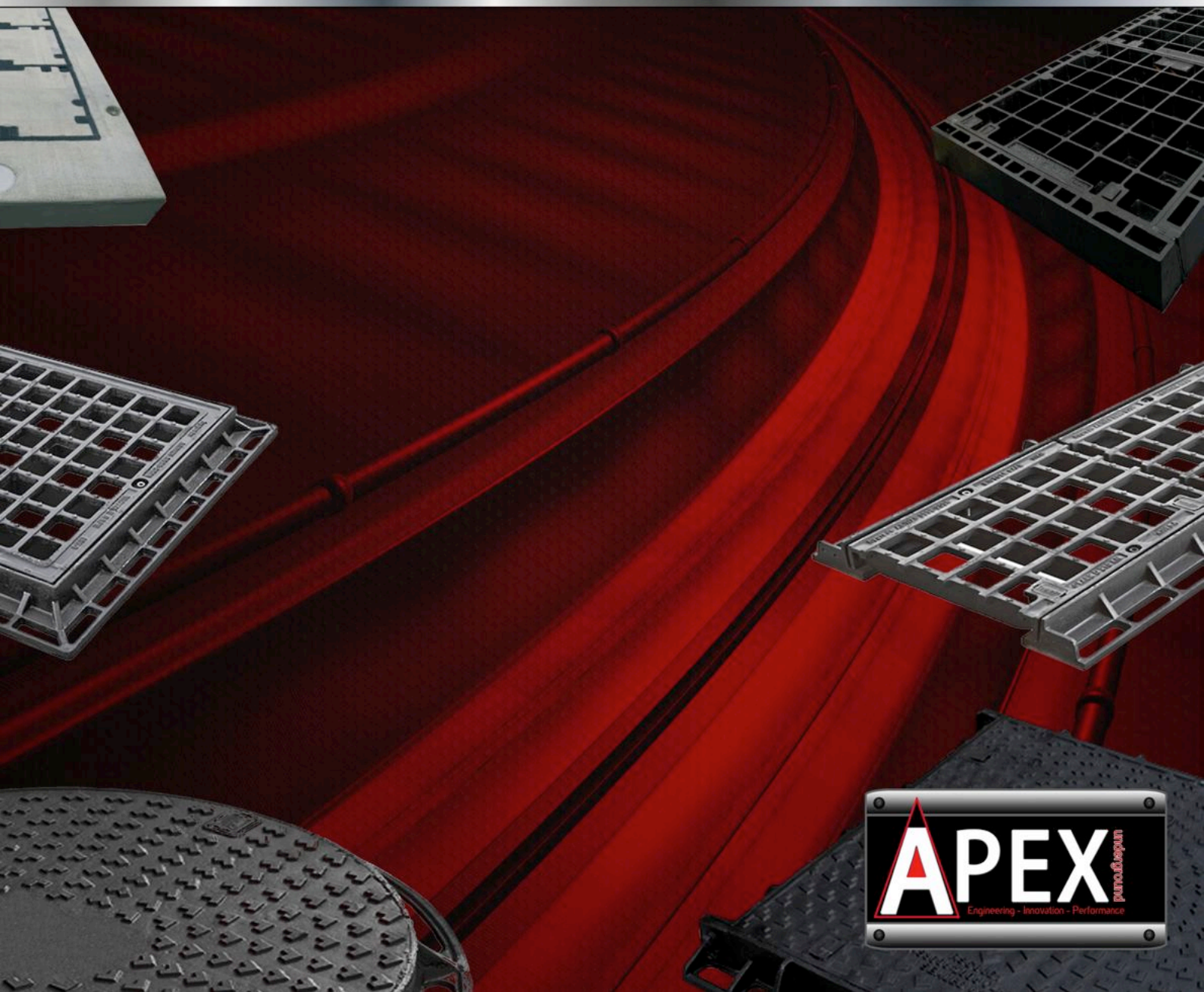


PARTS BOOK

Trademark Ranges

APEX ACCESS COVERS

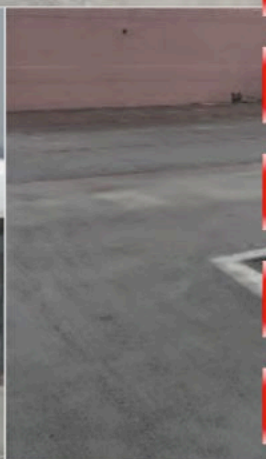
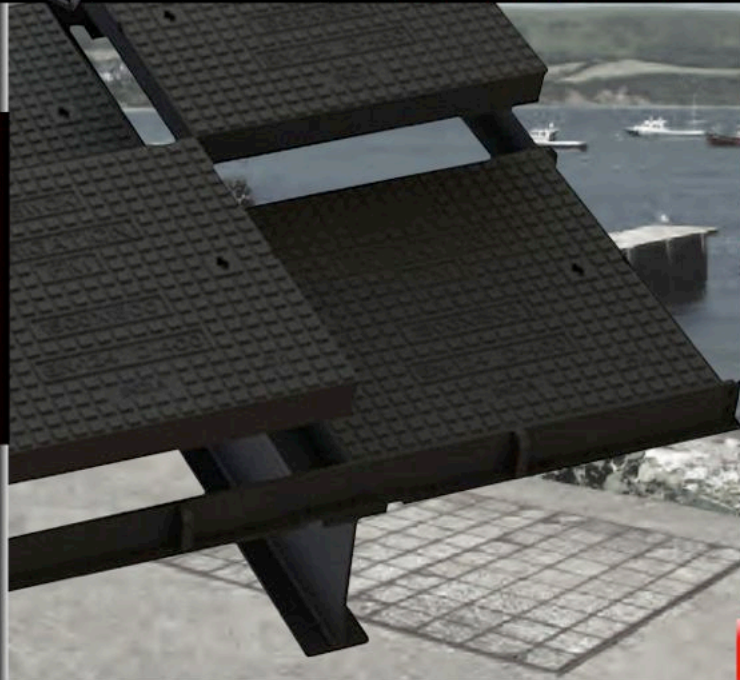


APEX ACCESS COVERS

Engineering > Innovation > Performance



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Introduction

Parts Book

PARTS BOOK

Our market has never been more exciting, fast paced and ever expanding than it is today. The responsibility on suppliers to innovate and evolve with this climate continues to grow as a crucial element in the success we enjoy today. Parts Book is dedicated to equipping our clients with simple and efficient procurement services through our forward thinking approach and multi-tiered structure, providing our clients with tools required to grow and excel within their respectful industry sectors. Parts Book offer an extensive range of quality products, application design facilities and various project management services. Backed with years of industry experience, Parts Books' polite and knowledgeable staff offers premium customer service from initial design stages, through to post installation care.

APEX Access Covers

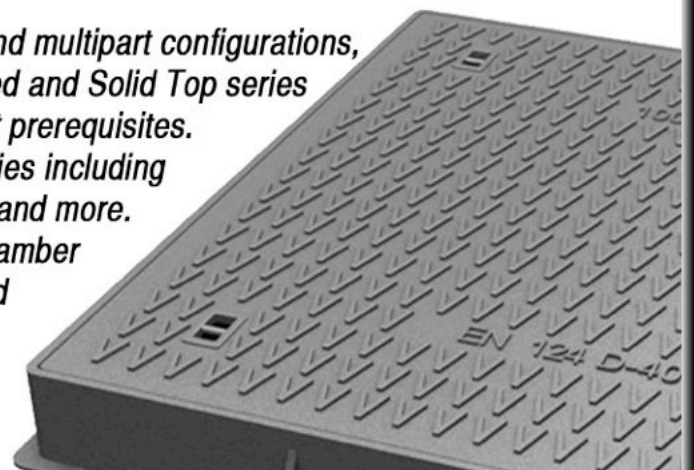


APEX Access Covers are a trademark product range by Parts Book. Comprising of certified manhole covers, grates and frames; the range offers an All-inclusive selection of size and load classification options, backed with our market leading combination of high performance, functionality and aesthetic appeal.

High degrees of product development and quality control has been; and continues to be invested into APEX Covers, ensuring the range is a valuable and consistently reliable system, playing a part in Australia's always evolving infrastructure.

As with all Parts Book Trademark Ranges, APEX Covers have been subject to the highest levels of quality control to ensure the range meets local and national compliance standards in addition to heightened performance efficiency, visual appeal, and relevant OHS factors. The result is a unique, market leading range manufactured to meet the unique requirements of the Australian market.

Our manhole covers are available in both single and multipart configurations, with various intermediate beam supports. Recessed and Solid Top series also allow for further fine-tuning to site and project prerequisites. Our covers are applicable to a multitude of industries including electrical, communications, plumbing, stormwater and more. In addition to complimenting the APEX Access Chamber range, APEX Access Covers are applicable to third party applications for both new installations and maintenance scenarios.



Features & Benefits

Anti-slip Surfaces

Concrete infill covers provide a non-slip surface similar to that of the surrounding concrete plinth. Solid top covers incorporate a raised lozenge pattern on the surface for exceptional grip.

NON-rocking

When correctly installed, APEX covers will be "non-rocking" under traffics and sealed against ingress from road, dirt and other detritus.

Watertight

A film of graphite grease between the contact faces of APEX units provides a gas and airtight seal as well as a watertight joint under typical rainwater conditions.

Pressure-tight

Standard single units with locking screws and holding down bolts are available to withstand upward pressure. Consult our technical department for additional details.

Easy removal/replacement

The machined underside seating face of APEX covers allows the sliding out of covers for easy removal or replacement.

Operator Control

Jack screw operating keys locate easily and securely into APEX covers and are a necessary tool if the inherent cover seal is to be broken effectively to allow contractors maximum control during operation.

Leveling Bolts

All side frame bars and wall boxes are fitted with bolts to assist in the leveling of the unit during installation.

Secure & Vandal Resistant

APEX Covers are designed to prevent tampering and unauthorized removal. Our covers cannot be removed without the correct lifting key, making any unauthorized removal virtually impossible. Locking bolts can be fitted to APEX Cover keyways as an additional security feature.

Closed Keyways

APEX cover keyways are closed and fitted with plastic plugs to prevent them from blocking up.

Frame Bars

APEX 140mm deep supporting frames incorporate an 'I' beam design profile to provide a robust and rigid frame that will withstand the specified loads, without any concrete infill or backfill.

Rigidity

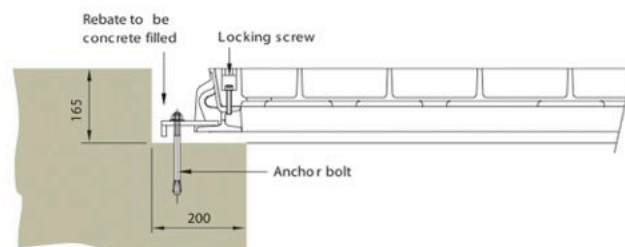
The robust and rigid design of APEX D210kN E400kN, F600kN and G900kN frames, combined with close manufacturing tolerances, provides a monolithic structure that will withstand the dynamic effects of traffic movement and impact.

Finishes

APEX Units are coated with a black bituminous solution that acts as temporary protection during transit. Removable supporting steelwork is galvanized to bS en ISO.

Installation

Consignments of APEX units are accompanied by comprehensive installation instructions.



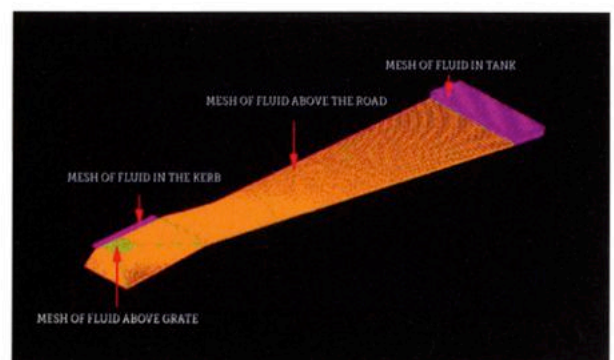
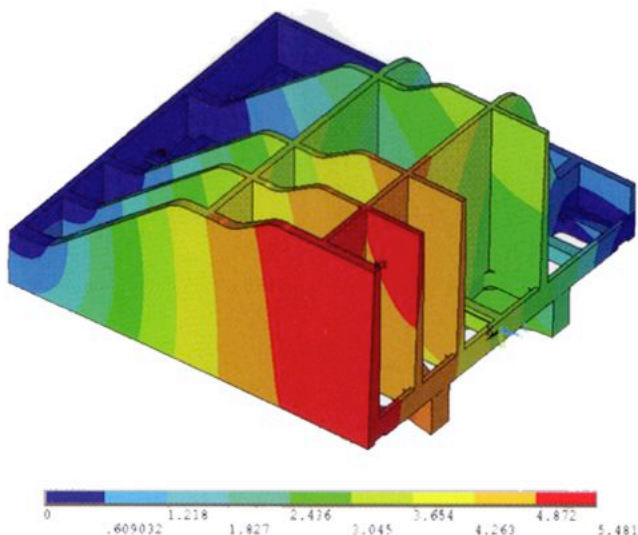
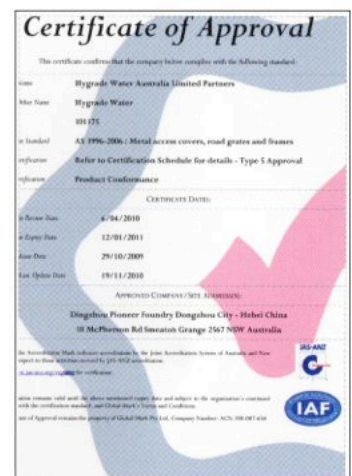
Technical

Technical Support

Parts Books' Trademark division offers quality and informed technical guidance with respect to application design, installation, post works maintenance etc. Our highly knowledgeable staff work with our clients on a "case by case" basis to ensure only the most appropriate solutions are supplied to each individual application. In addition to informed purchase advice, Parts Book can also assist in the design process in circumstances where applications are extensive or special requirements are desired. Parts Book is equipped with an in-house engineering team who can produce standard "shop" or specific to site drawings. We believe it is not enough to only supply market leading products to our clients, but to also contribute wherever possible to ensure a safe and simple installation is conducted time and time again; in addition to recognizing potential cost and time saving alternatives which further enhance the opportunities of our clients.

Approvals & Quality Assurance

APEX Access Covers take advantage of dual compliance standards, existing across both AS3996:2006 in addition to the internationally recognized BSEN124:1994. As a prerequisite, each product included in the APEX Access Cover range must first meet the stringent qualification criteria that is designed and executed by Parts Book to ensure our high standards of quality control are upheld. In addition to structural testing, APEX Access Covers are placed through FEA analysis to maximize on design opportunities such as weight reduction and strength optimization while individual C.F.D dynamic studies are undertaken to ensure sealing capabilities meet and surpass appropriate standards. Parts Book take every precaution to ensure our products are a market leader in safety, longevity and simplicity.



Single Part Covers

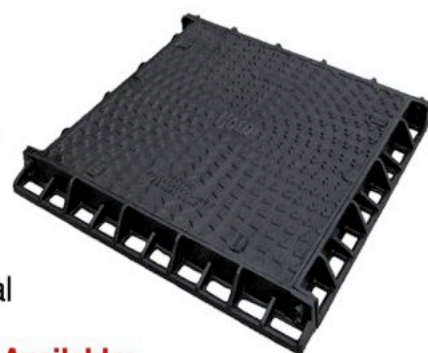
INFILL Single-Part Covers

APEX Single Part Solid-top Access Covers are manufactured from highly durable ductile iron, complete with fully machined mating surfaces between cover & frame for maximum sealing and longevity purposes. Designed with a unique polyethylene gasket within the frame assembly, our covers have eliminated the requirement for lead contaminated frame joints, while still maintaining a gas and watertight seal. Because Infill covers rely on concrete infill for integral strength, less iron is required during manufacturing, creating a highly cost effective manhole solution.






SOLID Single-Part Covers

APEX Single Part Solid-top Access Covers are manufactured from highly durable ductile iron, complete with fully machined mating surfaces between cover & frame for maximum sealing and longevity purposes. Designed with a unique polyethylene gasket within the frame assembly, our covers have eliminated the requirement for lead contaminated frame joints, while still maintaining a gas and watertight seal. Solid top access covers are lighter in weight and feature a more aesthetically appealing appearance than traditional concrete infill and therefore are ideal where



Load Classifications Available:
B80kN, C150kN, D210kN, E400kN, F600kN, G900kN

SINGLE PART RECESSED CONCRETE IN-FILL COVERS

	Clear Opening (mm)		Overall	Overall	Overall	Overall	Seating	Overall	Mass
	Width	Length	Cover Width	Cover Length	Frame Width	Frame Length	Depth	Frame Height	(kg)
	CLASS B – AS3996 – 80kN								
RIA33B1	305	305	353	349	457	407	38	48	24
RIA44B1	457	457	506	502	610	560	38	48	41
RIA66B1	610	610	658	654	762	712	38	48	60
RIA69B1	610	914	658	958	762	1016	38	48	88
RIA99B1	914	914	962	958	1066	1016	38	48	126
	CLASS D – AS3996 – 210kN								
RIA44D1	457	457	538	528	662	662	72	89	75
RIA66D1	610	610	690	680	814	814	72	89	103
RIA69D1	610	914	690	984	814	1118	72	89	148
RIA99D1	914	914	994	984	1118	1118	72	89	193
	CLASS G – AS3996 – 900kN								
RIA66G1	610	610	699	686	839	839	87	152	187
RIA69G1	610	914	699	990	839	1143	87	152	257
RIA99G1	914	914	1003	990	1143	1143	87	152	367

2 & 3 Part Covers

2 & 3 Part Covers

APEX 2/3 Part covers offer flexible and cost effective solutions for unusual pit sizes or heavy covers which require frequent access. By segmenting long, heavy covers (traditionally existing as a single unit) into 2 or 3 pieces, this range of covers can offer extensive reductions in the lifting weight of an application, greatly increasing the safety of those who are operating in or around the application while also improving the longevity of the unit itself. 2/3 Part covers are simple to install and provide a safe solution to application accessibility during operation and eliminates the need for heavy duty lifting machinery.

Load Classifications Available:




B80kN, C150kN, D210kN, E400kN, F600kN, G900kN

Contact Parts Book for any dimension requirements, NOT listed in the table below.

2 PART RECESSED CONCRETE IN-FILL COVERS

	Clear Opening (mm)		Overall	Overall	Overall	Overall	Seating	Overall	Mass
	Width	Length	Cover Width	Cover Length	Frame Width	Frame Length	Depth	Frame Height	(kg)
	CLASS B - AS3996 - 80kN								
MIA4596B12P	457	960	506	1004	610	1063	38	48	75
MIA6112B12P	610	1264	658	1308	762	1366	38	48	111
MIA6115B12P	610	1568	658	1612	762	1670	38	48	139
MIA6118B12P	610	1872	658	1916	762	1974	38	48	167
MIA9118B12P	914	1872	962	1916	1066	1974	38	48	240
	CLASS D - AS3996 - 210kN								
MIA4596D12P	457	986	538	1056	662	1190	72	89	133
MIA6112D12P	610	1290	690	1360	814	1494	72	89	185
MIA6115D12P	610	1594	690	1664	814	1798	72	89	230
MIA6118D12P	610	1898	690	1968	814	2102	72	89	275
MIA99D12P	914	986	994	1056	1118	1190	72	89	210
MIA9118D12P	914	1898	994	1968	1118	2102	72	89	356
	CLASS G - AS3996 - 900kN								
MIA6112G12P	610	1296	699	1372	839	1512	87	152	351
MIA6116G12P	610	1600	699	1676	839	1816	87	152	421
MIA6119G12P	610	1904	699	1980	839	2120	87	152	491
MIA9119G12P	914	1904	1003	1980	1143	2120	87	152	702

3 PART RECESSED CONCRETE IN-FILL COVERS

	Clear Opening (mm)		Overall	Overall	Overall	Overall	Seating	Overall	Mass
	Width	Length	Cover Width	Cover Length	Frame Width	Frame Length	Depth	Frame Height	(kg)
	CLASS B - AS3996 - 80kN								
MIA4514B13P	457	1462	506	1506	610	1565	38	48	109
MIA6119B13P	610	1918	658	1962	762	2020	38	48	162
MIA6122B13P	610	2222	658	2266	762	2324	38	48	190
MIA6125B13P	610	2526	658	2570	762	2628	38	48	218
MIA6128B13P	610	2830	658	2874	762	2932	38	48	240
MIA9128B13P	914	2830	962	2874	1066	2932	38	48	354
	CLASS D - AS3996 - 210kN								
MIA4519D13P	457	1970	538	2040	662	2171	72	89	191
MIA6119D13P	610	1970	690	2040	814	2174	72	89	267
MIA6122D13P	610	2274	690	2344	814	2548	72	89	312
MIA6125D13P	610	2578	690	2648	814	2782	72	89	357
MIA6128D13P	610	2882	690	2952	814	3086	72	89	402
MIA9128D13P	914	2882	994	2952	1118	3086	72	89	537
	CLASS G - AS3996 - 900kN								
MIA6112G13P	610	1982	699	2058	839	2211	87	152	515
MIA6122G13P	610	2586	699	2362	839	2515	87	152	585
MIA6125G13P	610	2590	699	2666	839	2816	87	152	655
MIA6119G13P	610	2894	699	2970	839	3123	87	152	725

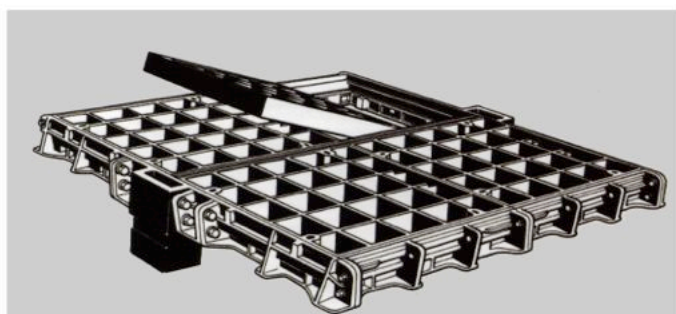
Multi-Part Covers

Multi-part Overview

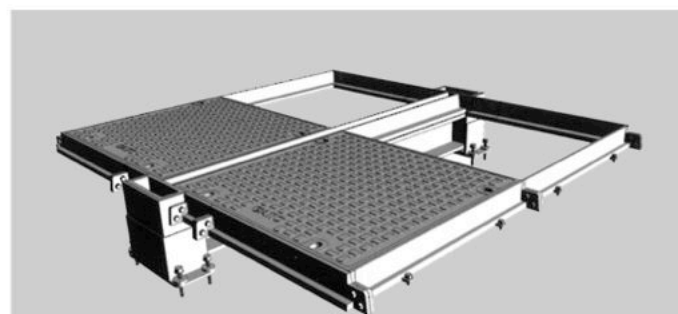
APEX Multi-part Covers are designed for use where an applications clear opening exceeds that of a single part unit; or where weight reduction is necessary. Multi-part covers (and in some cases, trench covers) are supplied with a practical crossbeam system with a rigid I-Beam design profile which provides improved structural integrity, simpler construction and is completely removable leaving an unrestricted clear opening when removed with the cover inserts. The removable beams used in Multi-part units are supported within Beam Housing Boxes which are installed flush with the chamber sidewall for maximum simplicity upon installation.

Load Classifications Available:

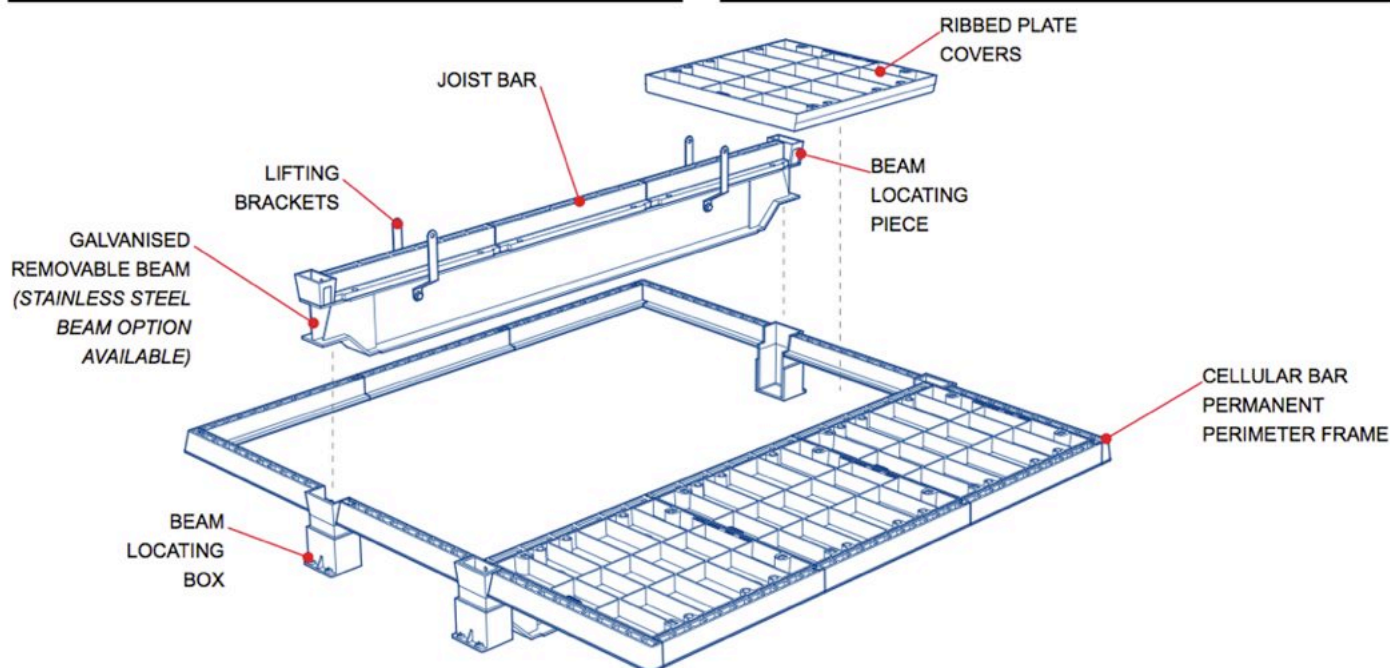
B80kN, C150kN, D210kN, E400kN, F600kN, G900kN



Infill Multi-part Access Cover



Solid Top Multi-part Access Cover



Unlike many leading competitors, **Parts Book** actively maintain a live stock of Multi-part covers and components meaning dramatically reduced lead-times when contrasted with the industry standard of 8-10

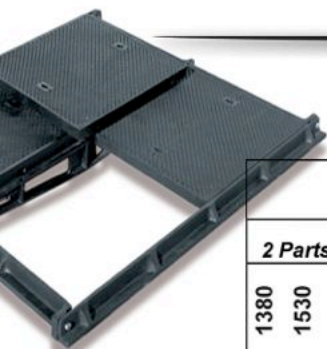
Multi-Part Covers

Multi-part Overview








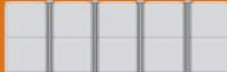




APEX Multi-part covers are highly versatile with respect to load classifications, dimensions and finishing types which include infill, solid top and paver infill. Multi-part cover sizes can be customized on an "application by application" basis simply by the combination of various cover inserts and frames. Designed and manufactured to meet the stringent qualification criteria of AS3996 & the internationally recognized BS EN124

Multi-part Size Guide

The size guide provided below is designed to assist in giving reference to how multi-part configurations are constructed. If the dimensions required are not shown in the below table, Parts Book are fully capable of designing new combinations which meet the requirements of unique applications



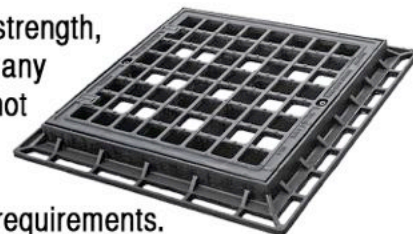
Pit Clear Opening Span (S) mm

2 Parts - 1 Beam						3 Parts - 2 Beams						4 Parts - 3 Beams								5 Parts - 4 Beams														
1380	1530	1680	1830	1980		2160	2310	2460	2610	2760	2910	3060		2940	3090	3240	3390	3540	3690	3840	3990	4140		3720	3870	4020	4170	4320	4470	4620	4770	4920	5070	5220
																																		
																																		
																																		



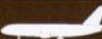
Grates

Sump Grates

APEX Sump Grates offer a unique solution where lifecycle, hydraulic efficiency, strength, handling and ease of installation are important aspects in the overall outcome of any particular project. Featuring a unique & modern anti-slip grid design, our grates not only provide extremely efficient water capture rates, but are also bicycle proof, providing improved public safety standards. Our covers can also be assembled for use in Multi-part configurations where single units do not meet capture or pit requirements.

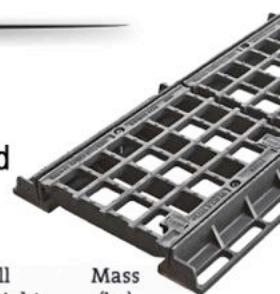


SUMP GRATES – DUCTILE

	Clear Opening (mm)		Overall	Overall	Overall	Overall	Seating	Overall	Mass
	Width	Length	Grate Width	Grate Length	Frame Width	Frame Length	Depth	Frame Height	(kg)
	CLASS B – AS3996 – 80kN								
SGA4545B1	450	450	530	530	694	694	57	76	53
SGA6060B1	600	600	680	680	844	844	57	76	79
SGA9060B1	900	600	980	680	1144	844	57	76	104
SGA9090B1	900	600	980	980	1144	1144	57	76	155
	CLASS D – AS3996 – 210kN								
SGA4545D1	450	450	530	530	694	694	57	76	60
SGA6060D1	600	600	680	680	844	844	57	76	87
SGA9060D1	900	600	980	680	1144	844	57	76	112
SGA9090D1	900	900	980	980	1144	1144	57	76	170
	CLASS G – AS3996 – 900kN								
SGA6060G1	600	600	680	680	844	844	57	76	117
SGA9060G1	900	600	980	680	1144	844	57	76	142
SGA9090G1	900	900	980	980	1144	1144	57	76	254

Trench Grates

APEX Trench Grates offer many of the same benefits as our Sump Grate range, with the added advantage of installing lengthy and expandable runs as necessary.



TRENCH GRATES – DUCTILE

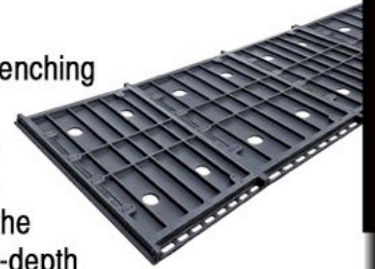
	Clear Opening (mm)		Overall	Overall	Overall	Overall	Seating	Overall	Mass
	Width	Length	Grate Width	Grate Length	Frame Width	Frame Length	Depth	Frame Height	(kg)
	CLASS B – AS3996 – 80kN								
TGA150B1L1000	150	1000	210	2 x 500	366	1000	40	59	42
TGA200B1L1000	200	1000	260	2 x 500	416	1000	40	59	46
TGA300B1L1000	300	1000	360	2 x 500	516	1000	40	59	50
	CLASS D – AS3996 – 210kN								
TGA150D1L1000	150	1000	210	2 x 500	366	1000	40	59	44
TGA200D1L1000	200	1000	260	2 x 500	416	1000	40	59	59
TGA300D1L1000	300	1000	360	2 x 500	516	1000	40	59	61
	CLASS G – AS3996 – 900kN								
TGA300G1L1000	300	1000	360	2 x 500	586	1000	63	82	124

Note: Frames are standard 1 meter lengths (500mm lengths available upon request)

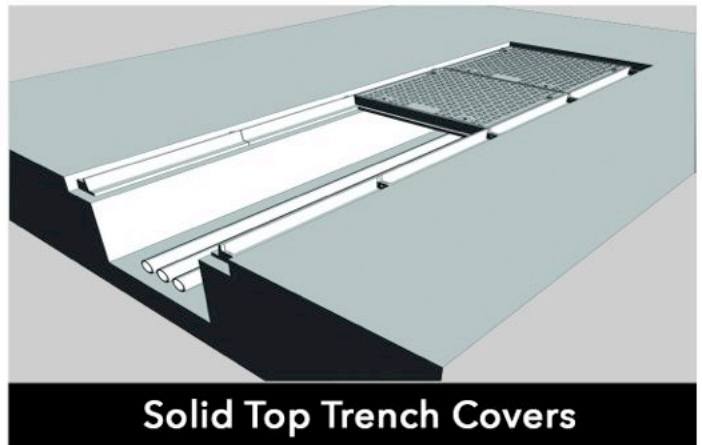
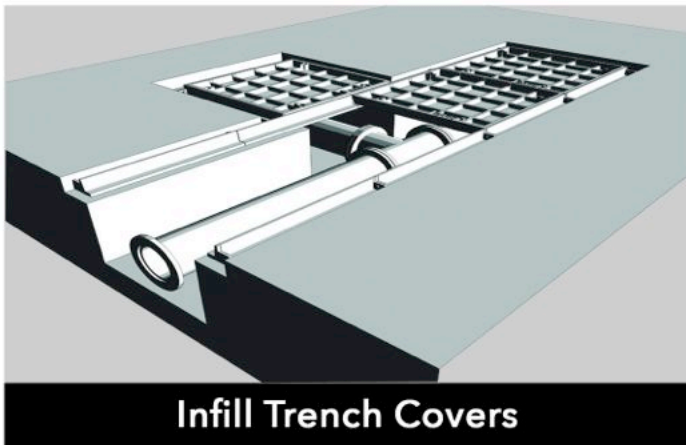
Trench Covers

Trench Covers

APEX Access Covers can be formed to create continuous cover configurations for trenching and applications that require complete, uninterrupted access to the services below. Formations can be designed and supplied in various configurations including simple straight runs or more advanced layouts to follow a specific route. Standard Solid top covers are supplied in straight runs, while junctions and splays can be achieved by the inclusion of localized recessed covers. Parts Books' engineering department offer in-depth technical support on this range to ensure a safe and sustainable system is supplied and installed.





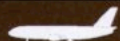
TRENCH COVERS



TRENCH-RUN RECESSED CONCRETE IN-FILL COVERS

Load Classifications Available:

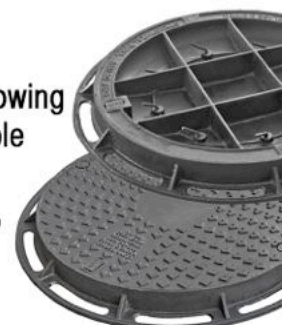
B80kN, C150kN, D210kN, E400kN, F600kN, G900kN

	Clear Opening (mm)		Overall	Overall	Seating	Overall
	Width	Length	Cover Width	Frame Width	Depth	Frame Height
	CLASS B – AS3996 – 80kN					
TRI30B1	305	LENGTH AS PER REQUIREMENT	353	457	38	48
TRI45B1	457		506	610	38	48
TRI60B1	610		658	762	38	48
TRI90B1	914		962	1066	38	48
	CLASS D – AS3996 – 210kN					
TRI45D1	457	LENGTH AS PER REQUIREMENT	538	662	72	89
TRI60D1	610		690	814	72	89
TRI90D1	914		994	1118	72	89
	CLASS G – AS3996 – 900kN					
TRI60G1	610	LENGTH AS PER REQUIREMENT	699	839	87	152
TRI90G1	914		1003	1143	87	152



Circular Covers

Circular Covers

APEX Circular Manhole Covers are available in both solid top and concrete infill options, allowing for individual site conditions and specification. The frame developed for this system is suitable for cast insitu and precast applications giving the customer great levels of versatility. Our circular covers are AS3996 compliant and feature anti-slip patterns, security locking options, stainless steel fasteners, plastic keyhole plugs and Australian standard compliant keyholes.



CIRCULAR COVERS

	Clear Opening Dia (mm)	Overall Cover Dia	Overall Frame Dia	Cover Badging	Seating Depth	Overall Frame Height	Mass (kg)
 CLASS B – AS3996 – 80kN							
CIA60B2	610	686	810	SEWER	38	65	46
	610	686	810	STORMWATER	38	65	46
	610	686	810	CUSTOM	38	65	46
 CLASS D – AS3996 – 210kN							
CIA60D2	610	686	810	SEWER	50	86	61
	610	686	810	STORMWATER	50	86	61
	610	686	810	CUSTOM	50	86	61

Load Classifications Available:

B80kN, C150kN, D210kN, E400kN, F600kN, G900kN

Accessories



Installation Guide

Installation Guidelines

All frames must be adequately, solidly and continuously supported in order to meet the design load conditions in each individual case. Due to the extreme diversity of individual site conditions, it is not possible to provide a blanket installation instruction however, the below guide serves as a reference for general site conditions.

All covers have been fitted within their respective frames to a degree that all mating, seating faces have metal to metal contact therefore, cover inserts are not interchangeable with other frames unless otherwise specified

The following guide is based on single part covers however, these basic principals can be applied to most cover & grate units. Multi-span installation guidelines and detailed product rebate drawings are available upon request.

1). Placement/Orientation

Place the unit squarely over the pit on a pre-prepared foundation ensuring the frame does not overhang the pits internal wall. The direction of cover removal must be considered where an obstacle abuts the pit opening. The covers removable edges are identified by 2 or 4 lifting keyholes present on the covers edges.

2). Adjust to correct level

Use packers positioned under each corner of the frame to adjust to the required height levels. Ensure that the packing material does not protrude into the pit opening. Plastic, steel or cement sheet are suitable materials. Wood as a packer is not suitable.

3). Formwork

Remove cover and place formwork on the inside face of the pit, ensuring formwork does not protrude above the horizontal seating surface of the frame.

4). Metal to metal contact

Clean the mating faces of covers and frames before placing the cover in position, ensuring metal to metal contact on all mating surfaces is achieved.

5). Mask Keyholes

Position keyhole & bolt-down plugs before concrete is poured.

6). Mask holes in base

Where applicable, cover up all holes on the base plate of the unit with a suitable material i.e plastic, metal or cement sheet etc.

7). Pour Concrete

Concrete the frame into position and fill cover with minimum 32mpa grade concrete. Thoroughly tamp or vibrate to eliminate any voids, ensuring concrete fills the cavity under the frame. Screed off excess concrete to a neat finish; cover ribs and edges should be visible. Allow concrete cure before cover is removed or any load is applied. Refer to AS3996:2006 appendix G for additional on-site concrete infill requirements.

8) Clean and Seal

After installation and at anytime where the cover is removed, clean and re-grease all seating faces of the cover and frame before replacing. Finally refit nylon keyhole & bolt down plugs.

PARTS BOOK

10kN
Load Class
A
EXTRA LIGHT DUTY

80kN
Load Class
B
LIGHT DUTY

150kN
Load Class
C
MEDIUM DUTY

210kN
Load Class
D
HEAVY DUTY

400kN
Load Class
E
EXTRA HEAVY DUTY

600kN
Load Class
F
EXTRA HEAVY DUTY

900kN
Load Class
G
EXTRA HEAVY DUTY


Typical Applications

Footways and areas accessible only to pedestrians and cycle and closed to other traffic.	Footways in areas that could potentially be mounted by cars or livestock.	Areas open to slow moving, regular traffic without the possibility of heavy machinery (ie forklifts).	Areas open to commercial traffic and caravans.	General dock areas and aircraft pavements.	Docks and aircraft pavements open to heavy wheel loading.	Docks and aircraft pavements open to very heavy wheel loading.
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22 Beneficial Way, Wangara WA 6065

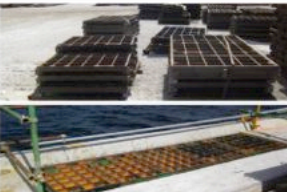

AS3996

Load Classification Chart



Service Trench Covers / Drains / Grates / Soakaways / Manhole Covers

APEX

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Trademark Ranges

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