Rhinocast® - Ductile Iron Access Covers and Frames

Typical Applications

- Internal areas
- Streetscapes
- Prestige/Aesthetic projects
- Commercial areas
- Industrial applications
- Docks and ports
- Airports
- Ducting trenches
- Roads and carriageways
- Electrical and communications
- Tradewaste, sewer and stormwater



Ductile iron strengthening ribs cast into the cover.





Decorative edge can be attached to the cover and frame for aesthetic areas and adds 12 or 40mm to overall height to allow for use of tiles or pavers



Circular covers are available as recessed or solid top

Class B Cover with 'T' frame



Class D & G covers with cellular frame



Circular covers



Product Features

- All covers are designed to meet Australian Standard AS 3996 Class B, C, D or G loading
- 600/3 ductile iron cover to AS 1831 and grey iron frame
- All covers are sealed to 1.5kPa to AS 3996 requirements
- 'T' or cellular frame provides excellent anchoring of the frame into the concrete bed
- Drawcut/undercut profile of cover and frame allows the cover to slide out, in one direction only
- Reinforcing ribs cast into the cover provide required strength
- Plastic dust caps prevent lifting boss filling with dirt and debris
- Optional brass or stainless steel decorative edging adds 12mm or 40mm to overall height to allow for use with tiles or brick pavers

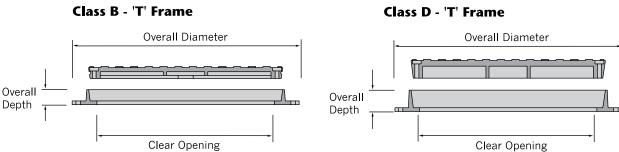






Rhinocast® - Circular Solid Top Ductile Iron Access Cover and Frame



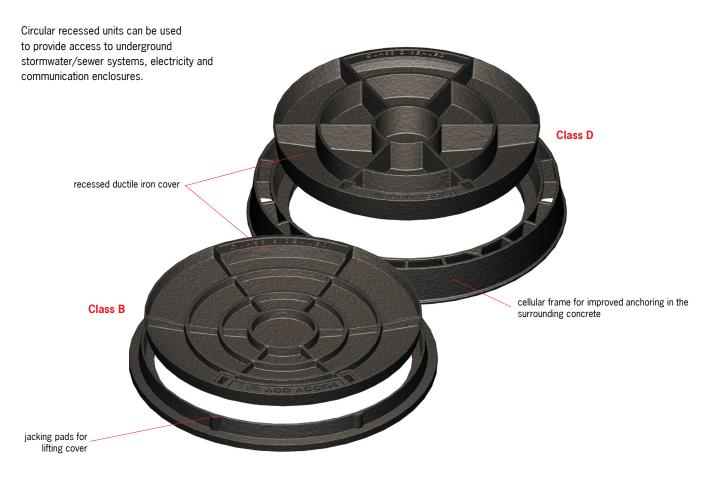


Туре	Part	Clear Opening	Overall	Overall	Cover	Overall	ID	Locking
	No.	Dia (mm)	Dia (mm)	Depth (mm)	Wgt (kg)	Wgt (kg)	Label	Option**
5	Class B	- A S 3996 - 8	0kN					
600SB	85142	600	700	50	28.0	43.0	sewer	LD/BB
615SB	85134	615	715	55	29.0	48.0	sewer	BB
600SB	85196	600	700	50	28.0	43.0	stormwater	LD/BB
60	Class D - AS 3996 - 210kN							
600SD	89155	600	700	72	43.0	63.0	stormwater	LD/BB
615SD	89148	615	715	72	45.0	65.0	sewer	BB
600SD	89183	600	700	72	43.0	63.0	sewer	LD/BB

^{*} Decorative edging - not available with circular covers.

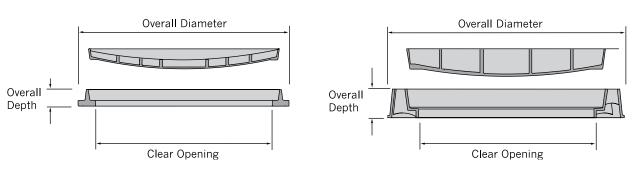
** Solid top covers have locking bolts as standard, for security applications, specify Barri bolts (BB) after part no.

Rhinocast® - Circular Recessed Ductile Iron Access Cover and Frame



Class B - 'T' Frame

Class D - Cellular Frame



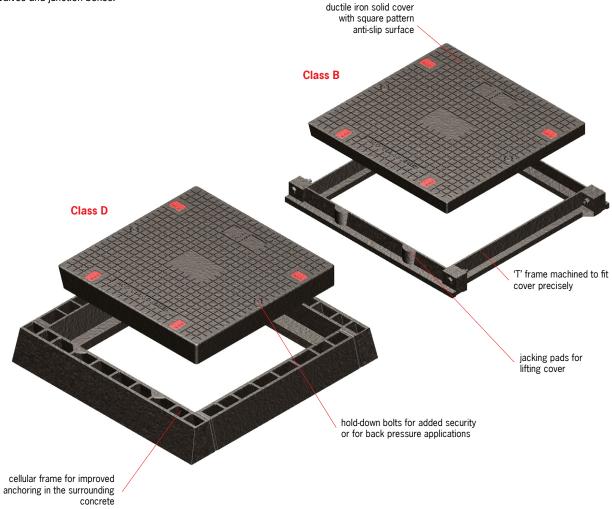
Туре	Part No.	Clear Opening Dia (mm)	Overall Dia (mm)	Overall Depth (mm)	Cover Wgt (kg)	Overall Wgt (kg)	Decorative Edging*	Locking Option**
5	Class B - AS 3996 - 80kN							
600RB	85107	600	720	58	30.0	55.0	n/a	LD/BB
6-0	Class D - AS 3996 - 210kN							
600RD	89109	600	815	102	51.0	98.0	n/a	LD/BB

^{*} Decorative edging - not available with circular covers.

** Optional locking bolts are available for security or back pressure applications - specify standard bolts (LD) or Barri bolts (BB) after part no.

Rhinocast® - Solid Top Ductile Iron Access Cover and Frame

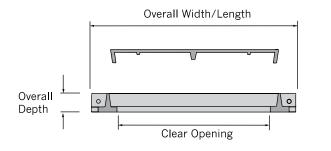
Single part square units can be used to provide access to underground stormwater/sewer systems, electricity and communication enclosures, greasetraps, valves and junction boxes.

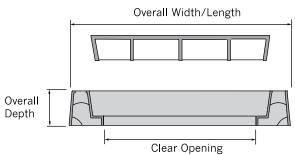


Also available as 2 part,3 part, trench and multi-part systems

Class B - 'T' Frame

Class D/G - Cellular Frame





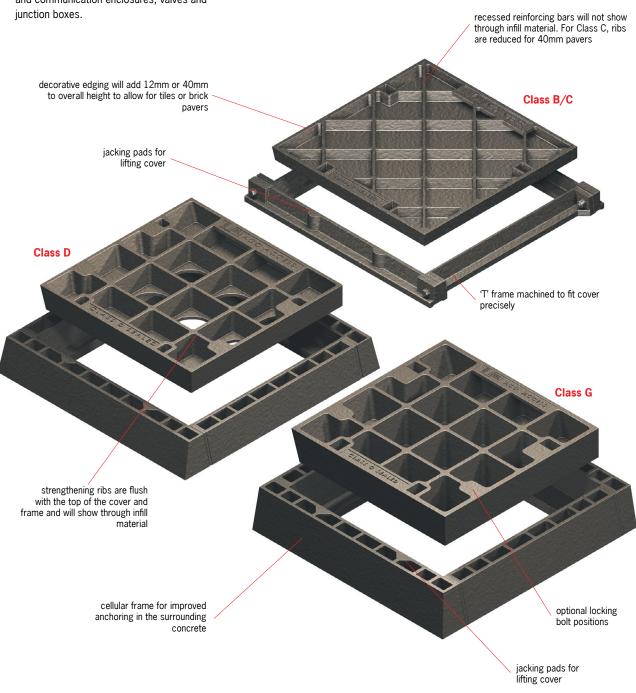
Туре	Part No.	Clear Opening* W x L (mm)		Overall Depth (mm)	Cover Wgt (kg)	Overall Wgt (kg)	Decorative Edging*	Locking Option**
5	Class B	8 - AS 3996 -	80kN					
DIS44B DIS46B DIS64B DIS66B DIS67B DIS74B DIS76B DIS77B DIS94B DIS96B	85249 85261 85236 85222 85215 85298 85287 85274 85208 85253	450 x 450 450 x 600 600 x 450 600 x 600 600 x 750 750 x 450 750 x 750 900 x 450 900 x 600	600 x 560 600 x 710 750 x 560 750 x 710 750 x 860 900 x 560 900 x 710 900 x 860 1050 x 710		20.0 31.0 28.0 35.0 51.0 39.0 52.0 60.0 48.0 57.0	44.0 54.0 54.0 62.0 82.0 66.0 82.0 94.0 79.0 89.0	BE/SS - 12/40 BE/SS - 12/40	LD/BB LD/BB LD/BB LD/BB LD/BB LD/BB LD/BB LD/BB LD/BB LD/BB
0-0	Class D	- AS 3996 -	210kN					
DIS44D DIS46D DIS64D DIS66D DIS67D DIS74D DIS76D DIS77D DIS94D DIS96D	89268 89283 89251 89235 89227 89294 89309 89315 89215	450 x 450 450 x 600 600 x 450 600 x 750 750 x 450 750 x 600 750 x 750 900 x 450 900 x 600	660 x 660 660 x 810 810 x 660 810 x 810 810 x 960 960 x 660 960 x 810 960 x 960 1110 x 660 1110 x 810		41.0 59.0 59.0 67.0 81.0 81.0 94.0 75.0 98.0 106.0	87.0 101.0 101.0 122.0 142.0 120.0 140.0 161.0 142.0 162.0	BE/SS - 12/40 BE/SS - 12/40	LD/BB LD/BB LD/BB LD/BB LD/BB LD/BB LD/BB LD/BB LD/BB

^{*} Decorative Brass (BE) or Stainless Steel (SS) edging can be added - just specify BE or SS and height (12mm or 40mm) after part no.

** Optional locking bolts are available for security or back pressure applications - specify standard bolts (LD) or Barri bolts (BB) after part no.

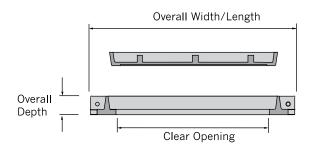
Rhinocast® - Single Part Recessed Ductile Iron Access Cover and Frame

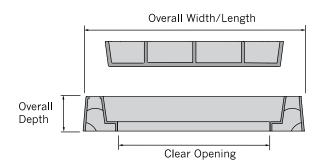
Single part square units can be used to provide access to underground stormwater/sewer systems, electricity and communication enclosures, valves and junction boxes.



Class B - 'T' Frame

Class D/G - Cellular Frame





Туре	Part No.	Clear Opening* W x L (mm)	Overall W x L (mm)	Overall Depth (mm)	Cover Wgt (kg)	Overall Wgt (kg)	Decorative Edging*	Locking Option**
5 -₩	Class B	- AS 3996 -	80kN					
DI44B DI46B DI64B DI66B DI67B DI76B DI77B DI94B DI96B DI97B DI99B	85014 85020 85037 85045 85125 85052 85061 85119 85078 85086 85093	450 x 450 450 x 600 600 x 450 600 x 600 600 x 750 750 x 600 750 x 750 900 x 450 900 x 600 900 x 750 900 x 900	600 x 560 600 x 710 750 x 560 750 x 710 750 x 860 900 x 710 900 x 860 1050 x 560 1050 x 860 1050 x 1010	55 55 55 55 55 55 55 55 55 55	28.0 30.0 28.0 36.0 43.0 44.0 60.0 45.0 57.0 71.0 86.0	47.0 56.0 54.0 63.0 74.0 74.0 94.0 76.0 89.0 107.0 124.0	BE/SS - 12/40 BE/SS - 12/40	LD/BB
•••	Class C	- AS 3996 -	150kN - red	duced ribs fo	or 40mm de	ep pavers		
DI44C DI66C DI96C DI99C	142313 142314 142315 142316	600 x 600 900 x 600	630 x 619 780 x 769 1080 x 769 1080 x 1069	85 85 85 85	30.0 56.0 75.0 102.0	63.0 98.0 123.0 160.0	BE/SS - 12/40 BE/SS - 12/40 BE/SS - 12/40 BE/SS - 12/40	LD/BB LD/BB LD/BB LD/BB
6-0	Class D	- AS 3996 -	210kN					
DI44D DI46D DI64D DI66D DI67D DI76D DI77D DI94D DI96D DI97D DI99D	89013 89020 89034 89041 89137 89058 89065 89124 89072 89086 89093	450 x 450 450 x 600 600 x 450 600 x 600 600 x 750 750 x 600 750 x 750 900 x 450 900 x 750 900 x 900	665 x 665 665 x 815 815 x 665 815 x 815 815 x 965 965 x 815 965 x 965 1115 x 665 1115 x 815 1115 x 1115	100 100 100 100 100 100 100 100 100	42.0 51.0 51.0 62.0 74.0 77.0 92.0 72.0 88.0 106.0 136.0	85.0 100.0 100.0 116.0 134.0 136.0 157.0 130.0 151.0 175.0 209.0	BE/SS - 12/40 BE/SS - 12/40	LD/BB
*	Class G	- AS 3996 -	900kN					
DI44G DI64G DI66G DI77G DI94G DI96G	87016 87039 87044 87067 87082 87075	450 x 450 600 x 450 600 x 600 750 x 750 900 x 450 900 x 600	685 x 685 835 x 685 835 x 835 985 x 985 1135 x 685 1135 x 835	125 125 125 125 125 125	86.0 104.0 135.0 200.0 145.0 180.0	149.0 170.0 206.0 251.0 230.0 270.0	BE/SS - 12/40 BE/SS - 12/40 BE/SS - 12/40 BE/SS - 12/40 BE/SS - 12/40 BE/SS - 12/40	LD/BB LD/BB LD/BB LD/BB LD/BB LD/BB

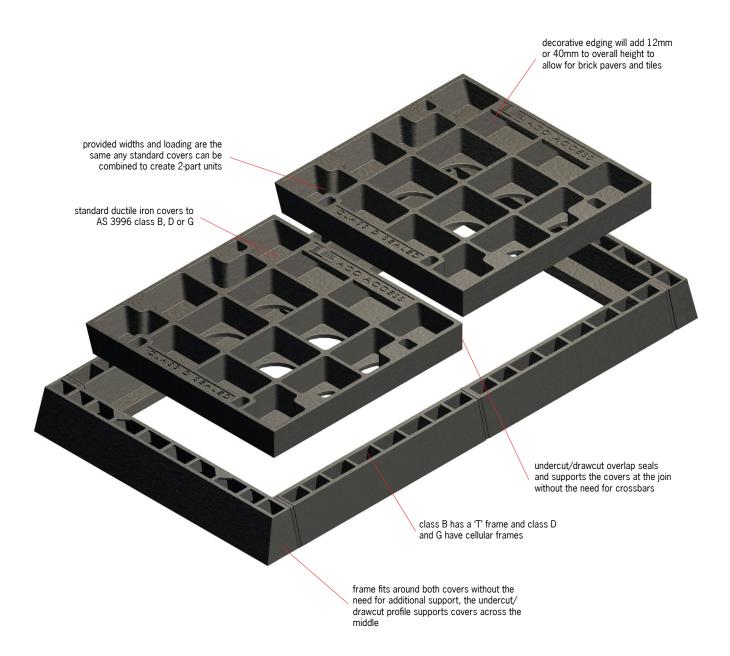
 $^{^{\}star}$ Decorative Brass (BE) or Stainless Steel (SS) edging can be added - just specify BE or SS and height (12mm or 40mm) after part no.

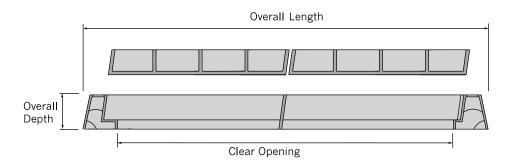
^{**} Optional locking bolts are available for security or back pressure applications - specify standard bolts (LD) or Barri bolts (BB) after part no.

Rhinocast® - 2-part Recessed Ductile Iron Access Cover and Frame

2-part units combine two standard size covers in a single run. They are used where a single part cover does not offer a large enough clear opening or if smaller individual covers are required for easier lifting.

Common applications include grease traps/arrestors, access to underground stormwater/sewer systems, electricity and communication enclosures, valves and junction boxes.





Туре	Part No.	Clear Opening* W x L (mm)	Overall W x L (mm)	Overall Depth (mm)	Cover Wgt (kg)	Overall Wgt (kg)	Decorative Edging*	Locking Option**
5	Class B	- AS 3996 -	80kN					
DI249B DI2412B DI269B DI2610B DI2612B DI2613B DI2615B DI2712B DI2713B DI2715B DI2910B DI2910B DI2912B DI2915B	85418 85433 85444 85459 85465 85555 85477 85482 85499 85159 85510 85503 85524	450 x 945 450 x 1245 600 x 945 600 x 1095 600 x 1245 600 x 1395 600 x 1545 750 x 1245 750 x 1395 750 x 1545 900 x 945 900 x 1095 900 x 1245 900 x 1545	600 x 1055 600 x 1355 750 x 1055 750 x 1205 750 x 1355 750 x 1505 750 x 1505 900 x 1355 900 x 1505 900 x 1655 1050 x 1055 1050 x 1205	55 55 55 55 55 55 55 55 55 55 55	22.0/22.0 30.0/30.0 28.0/28.0 28.0/36.0 36.0/36.0 36.0/43.0 43.0/43.0 44.0/44.0 60.0/60.0 60.0/60.0 45.0/45.0 45.0/57.0 57.0/57.0 71.0/71.0	83.0 100.0 98.0 105.0 110.0 123.0 132.0 152.0 172.0 142.0 153.0 166.0 198.0	BE/SS - 12/40 BE/SS - 12/40	LD/BB
DI2916B	85531	900 x 1695	1050 x 1805	55	71.0/86.0	213.0	BE/SS - 12/40	LD/BB
60	Class D	- AS 3996 -	ZIUKN					
DI249D DI2412D DI269D DI2611D DI2612D DI2614D DI2615D DI2712D DI2714D DI2715D DI299D DI2911D DI2912D DI2914D DI2915D DI2918D	89415 89431 89448 89456 89463 89556 89474 89489 89495 89162 89527 89512 89529 89533	450 x 970 450 x 1270 600 x 970 600 x 1120 600 x 1270 600 x 1420 600 x 1570 750 x 1270 750 x 1420 750 x 1570 900 x 970 900 x 1120 900 x 1420 900 x 1420 900 x 1870	665 x 1185 665 x 1485 815 x 1185 815 x 1485 815 x 1485 815 x 1635 815 x 1785 965 x 1485 965 x 1635 965 x 1785 1115 x 1185 1115 x 1385 1115 x 1485 1115 x 1785 1115 x 1785	100 100 100 100 100 100 100 100 100 100	42.0/42.0 51.0/51.0 51.0/51.0 51.0/62.0 62.0/62.0 62.0/74.0 74.0/74.0 77.0/77.0 92.0/92.0 72.0/72.0 72.0/88.0 88.0/106.0 106.0/106.0 136.0/136.0		BE/SS - 12/40	LD/BB
₹	Class G	- AS 3996 -	900kN					
DI249G DI649G DI2611G DI2612G DI2715G DI299G DI2911G DI2912G	87415 87448 87456 87463 87450 87568 87507 87512	450 x 990 600 x 990 600 x 1140 600 x 1290 750 x 1590 900 x 990 900 x 1140 900 x 1290	685 x 1225 835 x 1225 835 x 1375 835 x 1525 985 x 1825 1135 x 1225 1135 x 1385 1135 x 1525	125 125 125 125 125 125 125 125	86.0/86.0 104.0/104.0 104.0/135.0 135.0/135.0 200.0/200.0 145.0/145.0 145.0/180.0 180.0/180.0	341.0 377.0 553.0 433.0 446.0	BE/SS - 12/40 BE/SS - 12/40	LD/BB LD/BB LD/BB LD/BB LD/BB LD/BB LD/BB LD/BB

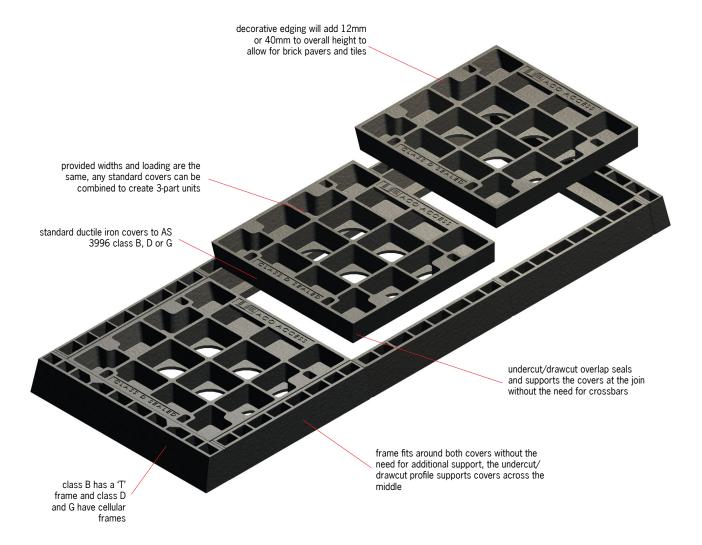
^{*} Decorative Brass (BE) or Stainless Steel (SS) edging can be added - just specify BE or SS and height (12mm or 40mm) after part no.
** Optional locking bolts are available for security or back pressure applications - specify standard bolts (LD) or Barri bolts (BB) after part no.

Rhinocast® - 3-part and Trench Run Recessed Ductile Iron Access Covers and Frames

3-part and trench cover units combine standard size covers in a single run. They are used where a single part cover does not offer a large enough clear opening or where continuous access is required.

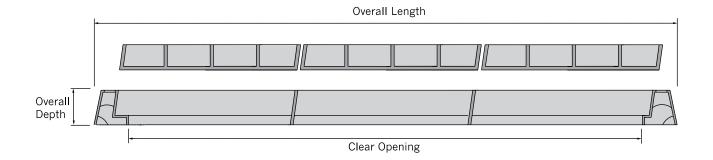
Common applications include grease traps/arrestors, communications enclosures, where access along the entire run is needed. All covers can be removed for full uninterrupted access or single covers can provide access to specific areas.

Covers are available to suit 550, 1,000 and 2,000 litre grease traps.



Trench Runs

Trench runs can be produced using any standard covers in widths of 450, 600, 750 or 900mm and in any length from 2340mm/2390mm upwards in multiples of 150mm.



Туре	Part No.	Clear Opening* W x L (mm)	Overall W x L (mm)	Overall Depth (mm)	Cover Wgt (kg)	Overall Wgt (kg)	Decorative Edging*	Locking Option**
-	Class B	- AS 3996 -	80kN					
DI3414B DI3614B DI3615B DI3617B DI3617B DI3620B DI3621B DI3623B DI3723B DI3914B DI3915B DI3917B DI3918B DI3923B	85614 85645 85645 85652 85666 85758 85627 85638 85700 85673 85689 85717 85725 85732	450 x 1440 600 x 1440 600 x 1590 600 x 1740 600 x 2040 600 x 2190 600 x 2340 750 x 2340 900 x 1440 900 x 1590 900 x 1740 900 x 1890 900 x 2340	600 x 1550 750 x 1550 750 x 1700 750 x 1850 750 x 2000 750 x 2150 750 x 2450 900 x 2450 1050 x 1550 1050 x 1850 1050 x 2000 1050 x 2450	55 55 55 55 55 55 55 55 55 55 55	22/22/22 28/28/28 28/28/36 36/36/28 36/36/43 36/43/43 43/43/43 60/60/60 45/45/45 45/45/57 45/57/57 57/57/57	119.0 140.0 126.0 157.0 165.0 172.0 187.0 190.0 250.0 206.0 218.0 231.0 243.0 289.0	BE/SS - 12/40	LD/BB LD/BB LD/BB LD/BB LD/BB LD/BB LD/BB LD/BB LD/BB LD/BB LD/BB LD/BB LD/BB LD/BB
6.0	Class D	- AS 3996 -	210kN					
DI3414D DI3614D DI3616D DI3617D DI3619D DI3620D DI3622D DI3623D DI3723D DI3914D DI3916D DI3917D DI3919D	89618 89653 89665 89674 89680 89625 89632 89646 89712 89720 89738 89746 89753	450 x 1490 600 x 1490 600 x 1640 600 x 1790 600 x 1940 600 x 2290 600 x 2240 600 x 2390 750 x 2390 900 x 1490 900 x 1640 900 x 1790 900 x 1940 900 x 2390	665 x 1705 815 x 1705 815 x 1855 815 x 2005 815 x 2155 815 x 2305 815 x 2455 815 x 2605 965 x 2605 1115 x 1705 1115 x 1855 1115 x 2005 1115 x 2155 1115 x 2605	100 100 100 100 100 100 100 100 100 100	42/42/42 51/51/51 51/51/62 51/62/62 62/62/74 62/74/74 74/74/74 92/92/92 72/72/72 72/72/88 72/88/88 88/88/88 106/106/106	219.0 252.0 283.0 299.0 300.0 322.0 330.0 342.0 411.0 352.0 368.0 394.0 405.0	BE/SS - 12/40	LD/BB LD/BB LD/BB LD/BB LD/BB LD/BB LD/BB LD/BB LD/BB LD/BB LD/BB LD/BB LD/BB LD/BB LD/BB
*	Class G	- AS 3996 -	900kN					
DI3414G DI3614G DI3616G DI3617G DI3619G DI3623G DI3914G DI3916G DI3917G DI3919G	87613 87658 87665 87672 87686 87693 87709 87714 87720 87737	450 x 1530 600 x 1530 600 x 1680 600 x 1830 600 x 1980 750 x 2430 900 x 1530 900 x 1640 900 x 1830 900 x 1980	665 x 1765 815 x 1765 815 x 1915 815 x 2065 815 x 2215 965 x 2665 1115 x 1765 1115 x 1915 1115 x 2065 1115 x 2215	125 125 125 125 125 125 125 125 125 125	86/86/86 104/104/104 104/104/135 104/135/135 135/135/135 200/200/200 145/145/145 145/145/180 145/180/180	505.0 523.0 554.0 807.0 636.0 671.0 711.0	BE/SS - 12/40 BE/SS - 12/40	LD/BB LD/BB LD/BB LD/BB LD/BB LD/BB LD/BB LD/BB LD/BB LD/BB

^{*} Decorative Brass (BE) or Stainless Steel (SS) edging can be added - just specify BE or SS and height (12mm or 40mm) after part no.

** Optional locking bolts are available for security or back pressure applications - specify standard bolts (LD) or Barri bolts (BB) after part no.

Rhinocast® - Multi-Part Recessed Ductile Iron Access Covers and Frame

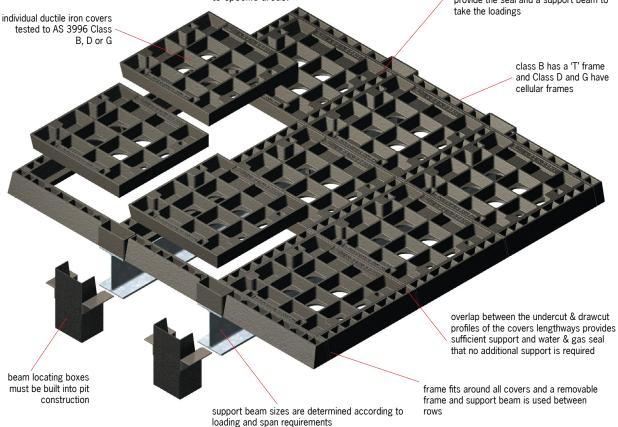
Multi-part units combine standard size covers in multiple rows and lengths. They are used where a single part cover does not offer a large enough clear opening or if smaller individual covers are required for easier lifting.

Covers do not have to be the same length, provided each row has covers of the same width and load class.

All covers and beams can be removed to allow full uninterrupted access, or single covers can be removed to provide access to specific areas.

Common applications include lift motor rooms, access to large industrial equipment, large electrical pits, pump wells, container ports and transformers.

between the covers widthways, the cover profiles are both undercut and therefore require an additional centre frame to provide the seal and a support beam to take the loadings



Note about weatherproofing

Due to the number of removable components including beams and individual covers, multi-part access covers by their very design cannot be made water tight. This is why AS 3996: Access covers and grates excludes large access cover systems from its scope. AS 3996 requires compliance in a number of areas including gas and water tightness. ACO multi-part covers are suitable for applications requiring general weather resistance on well drained enclosures. A reasonable degree of weather resistance can be achieved by sealing the edges of covers, frame interfaces and lifting holes each time the cover is removed for servicing. For applications requiring frequent access, ACO's Servokat Assist lift covers are recommended. See page 39.

Multi-part Sizes

The table on page 23-25 provides information on the common multi-part sizes and is intended as a quick reference guide.

Multi-parts are available in numerous configurations and different cover sizes can be combined to create a clear opening to suit almost any requirement.

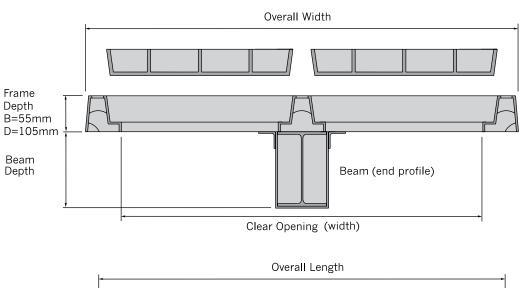
Multi-part Design

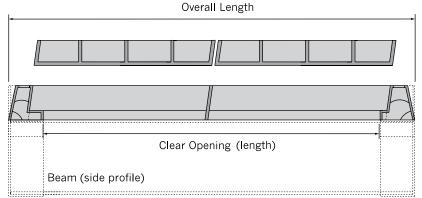
Due to the endless range of sizes available, ACO will design the multi-part closest to your requirements free of charge and obligation, simply supply the following information:

- Clear opening
- Load Class
- Position of obstacles that may affect cover removal direction
- Any width/slab depth restrictions

ACO will then provide:

- Actual clear opening
- · Schedule of covers needed
- Rebate drawing (which is essential for correct installation)





Туре	Part No.	Clear Opening* W x L (mm)	No Parts	Covers W x L	Load Bearing Beams Required	Decorative Edging*	Locking Option**
5	Class B	- AS 3996 - 80	kN				
DIMP109B DIMP1312B DIMP1323B DIMP1615B DIMP1925B DIMP2015B DIMP2019B DIMP2423B	85817 85822 85839 85843 85850 85864 85870 85888	1000 x 945 1300 x 1245 1300 x 2340 1600 x 1545 1900 x 2535 2000 x 1545 2000 x 1935 2450 x 2340	4-Part 4-Part 6-Part 4-Part 8-Part 6-Part 12-Part 9-Part	2 x 2 2 x 2 2 x 3 2 x 2 2 x 4 3 x 2 3 x 4 3 x 3	1 x 150mm UC 1 x 150mm UC 1 x 150mm UC 1 x 150mm UC 1 x 150mm UC 2 x 150mm UC 2 x 150mm UC 2 x 150mm UC	BE/SS - 12/40 BE/SS - 12/40	LD/BB LD/BB LD/BB LD/BB LD/BB LD/BB LD/BB LD/BB
6-0	Class D	- AS 3996 - 2 1	l 0kN				
DIMP109D DIMP1312D DIMP1323D DIMP1615D DIMP1926D DIMP2115D DIMP2120D DIMP2523D	89819 89823 89830 89844 89850 89868 89875 89882	1050 x 970 1350 x 1270 1350 x 2390 1650 x 1570 1950 x 2610 2100 x 1570 2100 x 2090 2550 x 2390	4-Part 4-Part 6-Part 4-Part 8-Part 6-Part 9-Part	2 x 2 2 x 2 2 x 3 2 x 2 2 x 4 3 x 2 3 x 3 3 x 3	1 x 250mm UB 1 x 250mm UB 1 x 250mm UB 1 x 250mm UB 1 x 250mm UB 2 x 250mm UB 2 x 250mm UB 2 x 250mm UB 2 x 250mm UB	BE/SS - 12/40 BE/SS - 12/40	LD/BB LD/BB LD/BB LD/BB LD/BB LD/BB LD/BB LD/BB

^{*} Decorative Brass (BE) or Stainless Steel (SS) edging can be added - just specify BE or SS and height (12mm or 40mm) after part no.

** Optional locking bolts are available for security or back pressure applications - specify standard bolts (LD) or Barri bolts (BB) after part no.