

GATIC® COEX. The economical solution
to protecting underground services.

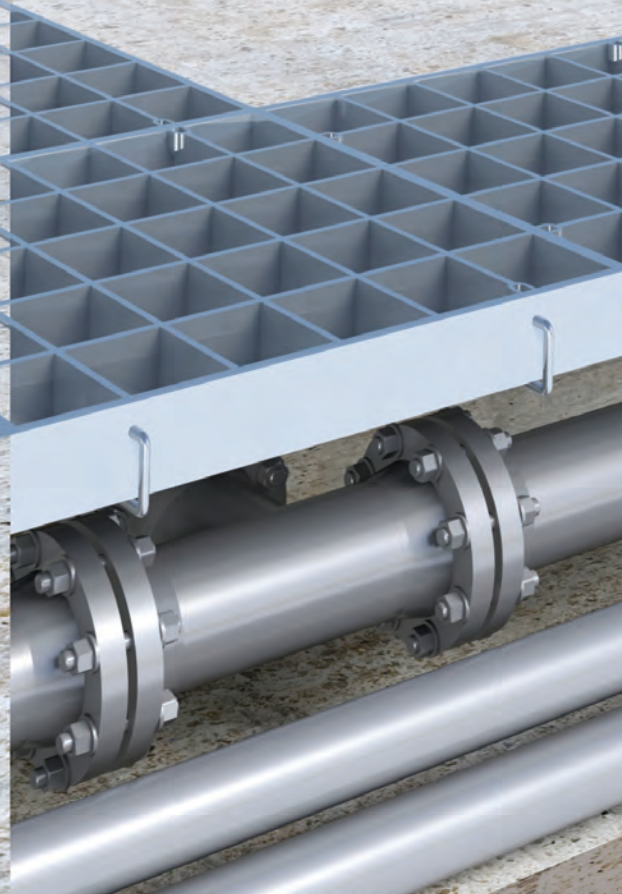


GATIC® COEX

An alternative access system from Gatic.

Product Features and Benefits

Gatic COEX is a comprehensive system of single, duct and multi span access covers and frames for use in slow moving traffic situations, where chequer plate, deep steel recessed or concrete slabs might otherwise be installed and a sealing facility is not required. COEX offers the versatility of a galvanised steel frame combined with the rigidity and durability of ductile iron covers. This enables shallower covers to be used which are therefore lighter than deep steel or concrete slabs. Thus offering a competitively priced long-term solution to protecting cables, pipes and underground equipment.



Cover types

Covers are recessed for concrete infill or solid top according to specifier preference.

Concrete infill recessed covers

Recessed covers are designed for filling with concrete as specified in BS EN 124 - C45 - 45 N/mm² for a test cube of 150mm, or a 40N/mm² for a test cylinder 150mm diameter x 300mm high, using a 10mm coarse aggregate.

Anti-slip surface covers

Concrete infill covers provide a non-slip surface similar to the surrounding areas. Solid top covers incorporate a raised lozenge pattern on the surface.

Materials

The components of COEX covers are manufactured from the following materials:

Ductile iron components to BS EN 1563:2011

Side frames and structural steel sections (removable beams) to BS 4-1:2005

Non-rocking

Correctly installed, COEX covers will be non-rocking under slow moving traffic.

Easy removal/replacement

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

Operator control

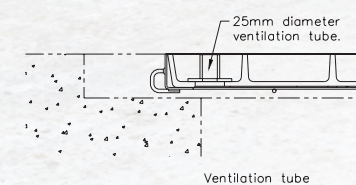
Jack screw operating keys locate positively and securely into COEX covers and are a necessary tool if the inherent cover seal is to be broken effectively and to allow operator maximum control during operation.

Secure and vandal resistant

Covers are designed to prevent tampering and unauthorised removal.

Ventilation

Ventilation can be provided by fitting four 25mm diameter ventilation tubes in recessed covers.



Closed keyways

COEX cover keyways are closed and fitted with plastic plugs to prevent the ingress of dirt.

Loadings

All COEX covers will withstand test load and maximum permanent set criteria specified in BS EN 124: 1994 for each loading category.

Secure support

The clear opening width between supporting frames are at least 7mm greater than the pit/chamber design to allow for minor deviations in pit construction dimensions.

Beam wallbox

Supporting beams in COEX Multispan units are easily removed with appropriate lifting equipment for access to the total chamber area. Beam wallboxes do not project into the chamber opening.

Finishes

Covers are coated with a black bituminous solution that acts as a temporary protection during transit. Removable supporting steelwork and side frames are galvanised to BS EN ISO 1461:2009.

Installation

Consignments of COEX units are accompanied by comprehensive installation instructions.

Environmental commitment

Responsibility towards the environment is our primary concern. Our customers often now demand products that are made from recycled and recyclable materials, supplied by companies with robust environmental policies to reduce the environmental impact of their projects for future generations.

To meet these requirements we have an integrated Quality (BS EN ISO 9001:2008) and Environmental (BS EN ISO 14001:2004) Management System which encompasses the design, manufacture and management systems within the company and ensures our commitment to continuous environmental improvements regarding the manufacture and design of all our products in the following ways:

- Minimise environmental impact
- Commit organisational resources to energy management
- Reduce energy costs
- Give high priority to energy efficient investments
- Consider life cycle energy costs for all new projects
- Minimise CO₂ emissions year on year
- Use energy from sustainable resources wherever possible

To achieve these goals we have put in place the necessary systems and controls to meet demanding environmental targets and to make sure that these are maintained for the future benefit of the environment and our customers alike.

Gatic services

Gatic offers a full support service to specifiers and contractors, including Computer Aided Design. AutoCAD compatible details of all Gatic products are available. Please consult our technical department for assistance.

In view of our commitment to product improvement, we reserve the right to alter designs without notice. Design changes will not adversely affect the performance or loading capability of our products.



ASSURANCE

The Gatic Quality Management System has been approved to BS EN ISO 9001:2008 Certificate No. FM 593418



ASSURANCE

The Gatic Environmental Management System has been approved to ISO 14001:2004 Certificate No. EMS 593419



GATIC® COEX – Medium Duty

Single Covers and Frames

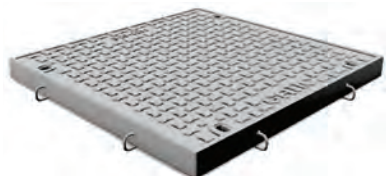
Suitable for 5 tonne slow moving pneumatic wheel load. Cover test load - 250kN

Recessed Top Covers

Pit clear opening sizes L x S	Cover type
750 x 300	CDLF
600 x 450	CDLF
750 x 450	CDMR
600 x 600	CDLF
750 x 600	CDLF
900 x 600	CDLF
750 x 750	CDLF
900 x 750	CDLF
900 x 900	CDLF
600 x 1050	CDM
750 x 1050	CDM
1000 x 1050	CDM
600 x 1200	CDM
750 x 1200	CDM



Recessed Top Cover
Type CDLF or CDM



Solid Top Cover
Type CDLS or CDMS

Solid Top Covers

Pit clear opening sizes L x S	Cover type
600 x 600	CDLS
750 x 600	CDLS
900 x 600	CDLS
750 x 750	CDLS
900 x 750	CDLS
900 x 900	CDLS
600 x 1200	CDMS
750 x 1200	CDMS
1000 x 1000	CDMS

Duct & Trench Covers and Frames

Suitable for 5 tonne slow moving pneumatic wheel load. Cover test load - 250kN

Recessed Top Covers

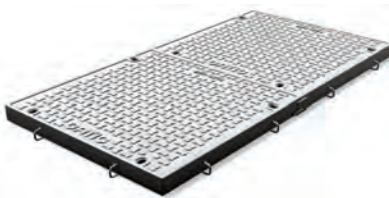
Pit clear opening spans	Cover type
300	CDLF
450	CDLF
600	CDLF
750	CDLF
900	CDLF
1050	CDM
1200	CDM
1500	CDM/F



Recessed Top Covers
Type CDLF / CDM or CDM/F

Solid Top Covers

Pit clear opening spans	Cover type
600	CDLS
750	CDLS
900	CDLS
1200	CDMS



Solid Top Covers
Type CDLS or CDMS

Recessed Covers

Recessed covers can be supplied to cover ducts or trenches as straight runs or as complex layouts.

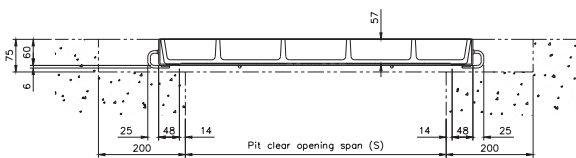
Pit clear opening spans	Cover type	Standard Pit clear opening length											
		1300	1450	1600	1750	1900	2000	2150	2300	2450	2600	2700	2750
300	CDLF	*	*	2	*	*	*	*	*	3	*	*	*
450	CDLF	2	*	*	*	*	3	*	*	*	*	4	*
600	CDLF	2	2	2	2	2	3	3	3	3	3	4	3
750	CDLF	2	2	2	2	2	3	3	3	3	3	4	3
900	CDLF	2	2	2	2	2	3	3	3	3	3	4	3
1050	CDM	2	2	2	*	*	3	3	3	3	*	4	*
1200	CDM	2	2	2	*	*	3	3	3	3	*	4	*
1500	CDM/F	2	2	2	*	*	3	3	3	3	*	4	*

Solid Top Covers

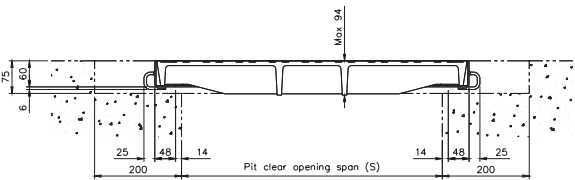
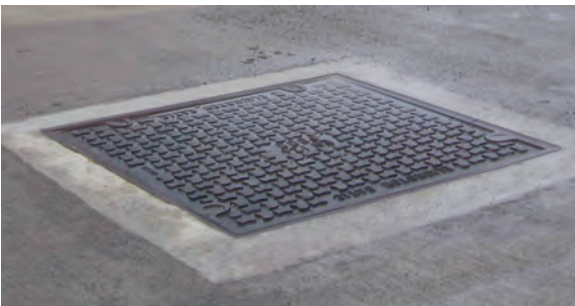
Solid top covers are usually supplied in straight runs.

Pit clear opening spans	Cover type	Standard Pit clear opening length											
		1300	1450	1600	1750	1900	2000	2150	2300	2450	2600	2700	2750
600	CDLS	2	2	2	2	2	3	3	3	3	3	4	3
750	CDLS	2	2	2	2	2	3	3	3	3	3	4	3
900	CDLS	2	2	2	2	2	3	3	3	3	3	4	3
1200	CDMS	2	2	2	*	*	3	3	3	3	*	4	*

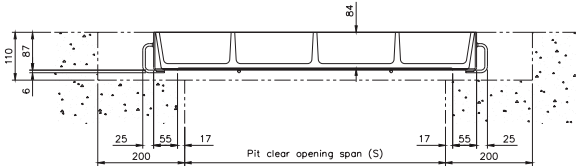
*Indicates standard sizes not available - The number shown indicates the quantity of cover parts - Other standard sizes may be available, refer to our technical department.



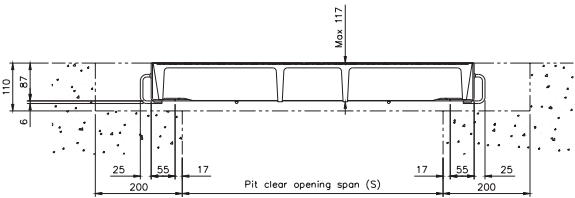
Type CDLF



Type CDLS



Type CDM



Type CDMS



GATIC®COEX – Medium Duty

Multispan covers and frames

Suitable for 5 tonne slow moving pneumatic wheel load. Cover test load - 250kN

Specification

Below is sample specification information and notes for Multispan recessed or Solid Top covers and frames.

Loading group Gatic C250
5 tonne wheel load – test load 250 kN.

Materials

Covers: Ductile iron components to BS EN 1563:2011.
Structural steel removable beams to BS 4-1:2005.
Frame bars to BS 4-1:2005.

Finishes

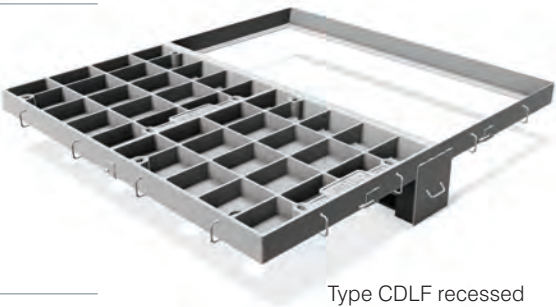
Covers coated with black bituminous solution for protection during transit.
Removable supporting steelwork and side frames galvanised to BS EN ISO 1461:2009.

Infill and surround concrete by customer

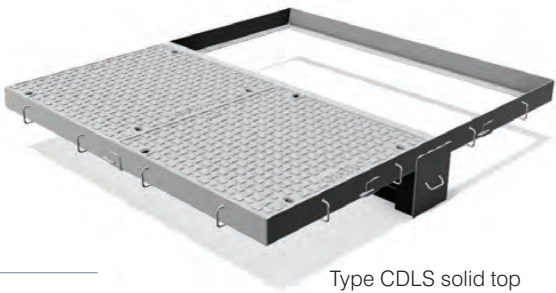
Concrete strength, using 10mm coarse aggregate, to be:
45N/mm2 for a test cube of 150mm or
40N/mm2 for a test cylinder of 150mm diameter x 300mm high.

Installation

In accordance with instructions supplied by Gatic.



Type CDLF recessed



Type CDLS solid top

To specify use size and description format as follows:

COEX Multispan Recessed covers and frames Cover type **CDLF recessed**
Multiple access covers recessed for concrete infill with removable beams.

.... in no. (length) x (span) mm pit clear opening multi span cover and frame.
COEX Type CDLF Ductile Iron Recessed Cover in parts complete with
.... in no. x mm galvanised removable support beam spanning the (length) mm way.
Suitable for Loading Group C250 – Medium Duty 5 Tonnes Wheel Load (pneumatic tyre).

COEX Multispan Solid Top covers and frames Cover type **CDLS solid top**
Multiple solid top access covers with removable beams.

.... in no. (length) x (span) mm pit clear opening multi span cover and frame.
COEX Type CDLS Ductile Iron Solid Top Cover in parts complete with
.... in no. x mm galvanised removable support beam spanning the (length) mm way.
Suitable for Loading Group C250 – Medium Duty 5 Tonnes Wheel Load (pneumatic tyre).

Standard pit clear opening sizes are shown on Page 7.

Beam sizes and other dimensions are shown on Pages 8 and 9.

Multispan covers and frames

Product Selection

Refer to the table to identify which cover and beam configuration you require against pit clear opening length (L) and pit clear opening span (S). All dimensions are in millimetres.

		Pit clear opening length (L) mm												Beam centres mm																																										
		2 parts					3 parts					4 parts					A					B					C					D					E																			
		1200	1350	1500	1650	1800	1900	2050	2200	2350	2500	2650	2800	2600	2750	2900	3050	3200	3350	3500	3650	3800																																		
Pit clear opening span (S) mm	2 parts 1 beam																																																							
		4 part (2x2) multispan cover with 1 removable support beam					6 part (3x2) multispan cover with 1 removable support beam					8 part (4x2) multispan cover with 1 removable support beam																																												
	1370																																																							
	1520																																																							
	1670																																																							
3 parts 2 beams	1820																																																							
	1970																																																							
	2140																																																							
	2290																																																							
	2440																																																							
4 parts 3 beams	2590																																																							
	2740																																																							
	2890																																																							
	3040																																																							
	3210																																																							
5 parts 4 beams	3360																																																							
	3510																																																							
	3660																																																							
	3810																																																							
	3960																																																							
6 parts 5 beams	4110																																																							
	4260																																																							
	4410																																																							
	3680																																																							
	3830																																																							
7 parts 6 beams	3980																																																							
	4130																																																							
	4280																																																							
	4430																																																							
	4580																																																							
8 parts 7 beams	4730																																																							
	4880																																																							
	5030																																																							
	5180																																																							

Note: For other pit clear opening sizes please refer to our technical department

Multispan covers and frames

GATIC® COEX – Heavy Duty

Single Covers and Frames

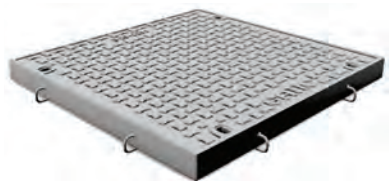
Suitable for 11.5 tonne slow moving pneumatic wheel load. Cover test load - 400kN

Recessed Top Covers

Pit clear opening sizes L x S	Cover type
750 x 300	CDLF
600 x 450	CDMR
750 x 450	CDMR
600 x 600	CDMR
750 x 600	CDMR
900 x 600	CDMR
750 x 750	CDMR
900 x 750	CDMR
900 x 900	CDMR
600 x 1050	CDM
750 x 1050	CDM
1000 x 1050	CDM
600 x 1200	CDM
750 x 1200	CDM



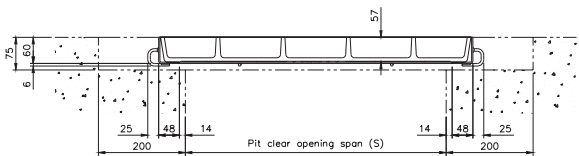
Recessed Top Covers
Type CDLF or CDMR or CDM



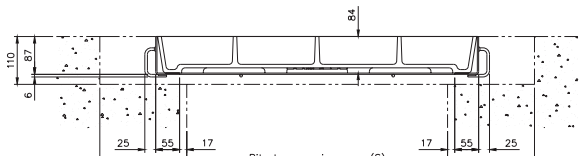
Solid Top Covers
Type CDMS

Solid Top Covers

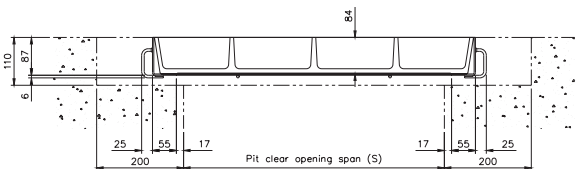
Pit clear opening sizes L x S	Cover type
600 x 600	CDMS
750 x 600	CDMS
900 x 600	CDMS
750 x 750	CDMS
900 x 750	CDMS
900 x 900	CDMS
600 x 1200	CDMS
750 x 1200	CDMS
1000 x 1000	CDMS



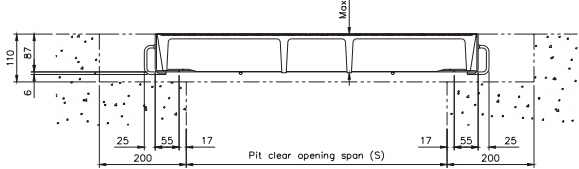
Type CDLF



Type CDMR



Type CDM



Type CDMS

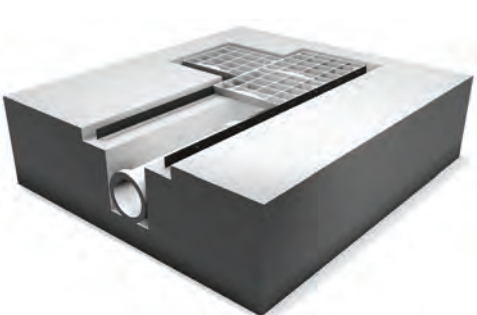


Duct & Trench Covers and Frames

Suitable for 11.5 tonne slow moving pneumatic wheel load. Cover test load - 400kN

Recessed Top Covers

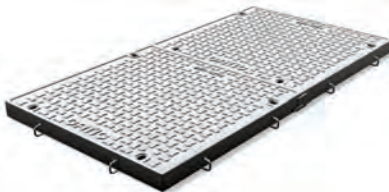
Pit clear opening spans	Cover type
300	CDLF
450	CDMR
600	CDMR
750	CDMR
900	CDMR
1050	CDM
1200	CDM
1500	CDM/F



Recessed Top Covers
Type CDLF / CDM / CDM/F or CDMR

Solid Top Covers

Pit clear opening spans	Cover type
600	CDMS
750	CDMS
900	CDMS
1200	CDMS



Solid Top Covers
Type CDMS

Recessed Covers

Recessed covers can be supplied to cover ducts or trenches as straight runs or as complex layouts.

Pit clear opening spans	Cover type	Standard Pit clear opening length											
		1300	1450	1600	1750	1900	2000	2150	2300	2450	2600	2700	2750
300	CDLF	*	*	2	*	*	*	*	*	3	*	*	*
450	CDMR	2	2	2	*	*	3	3	3	3	*	4	*
600	CDMR	2	2	2	2	2	3	3	3	3	3	4	3
750	CDMR	2	2	2	2	2	3	3	3	3	3	4	3
900	CDMR	2	2	2	2	2	3	3	3	3	3	4	3
1050	CDM	2	2	2	*	*	3	3	3	3	*	4	*
1200	CDM	2	2	2	*	*	3	3	3	3	*	4	*
1500	CDM/F	2	2	2	*	*	3	3	3	3	*	4	*

Solid Top Covers

Solid top covers are usually supplied in straight runs.

Pit clear opening spans	Cover type	Standard Pit clear opening length											
		1300	1450	1600	1750	1900	2000	2150	2300	2450	2600	2700	2750
600	CDMS	2	2	2	2	2	3	3	3	3	3	4	3
750	CDMS	2	2	2	2	2	3	3	3	3	3	4	3
900	CDMS	2	2	2	2	2	3	3	3	3	3	4	3
1200	CDMS	2	2	2	*	*	3	3	3	3	*	4	*

*Indicates standard sizes not available - The number shown indicates the quantity of cover parts - Other standard sizes may be available, refer to our technical department.



GATIC®COEX – Heavy Duty

Multispan covers and frames

Suitable for 11.5 tonne slow moving pneumatic wheel load. Cover test load - 400kN

Specification

Below is sample specification information and notes for Multispan recessed covers and frames.

Loading group Gatic D400
11.5 tonne slow moving pneumatic wheel load – test load 400 kN.

Materials

Covers: Ductile iron components to BS EN 1563:2011.
Structural steel removable beams to BS 4-1:2005
Side Frames: Mild steel.

Finishes

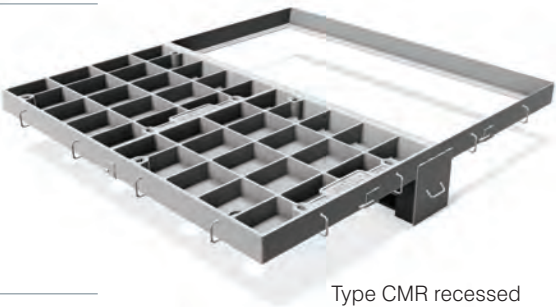
Covers coated with black bitumous solution for protection during transit.
Removable supporting steelwork and side frames galvanised to BS EN ISO 1461:2009.

Infill and surround concrete by customer

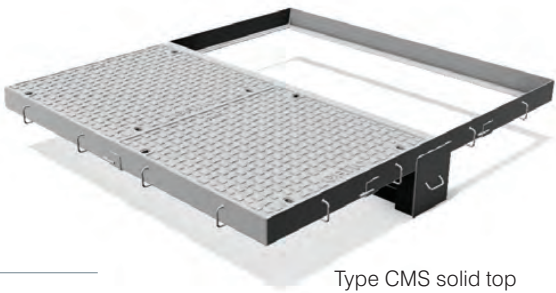
Concrete strength, using 10mm coarse aggregate, to be:
45N/mm2 for a test cube of 150mm or
40N/mm2 for a test cylinder of 150mm diameter x 300mm high.

Installation

In accordance with instructions supplied by Gatic.



Type CMR recessed



Type CMS solid top

To specify use size and description format as follows:

COEX Multispan Recessed covers and frames Cover type **CDMR recessed**
Multiple access covers recessed for concrete infill with removable beams.

.... in no. (length) x (span) mm pit clear opening multi span cover and frame.
COEX Type CDMR Ductile Iron Recessed Cover in parts complete with
.... in no. x mm galvanised removable support beam spanning the (length) mm way.
Suitable for Loading Group D400 – 11.5 Tonnes Slow Moving Wheel Load (pneumatic tyre).

COEX Multispan Solid Top covers and frames Cover type **CDMS solid top**
Multiple solid top access covers with removable beams.

.... in no. (length) x (span) mm pit clear opening multi span cover and frame.
COEX Type CDMS Ductile Iron Solid Top Cover in parts complete with
.... in no. x mm galvanised removable support beam spanning the (length) mm way.
Suitable for Loading Group D400 – 11.5 Tonnes Slow Moving Wheel Load (pneumatic tyre).

Standard pit clear opening sizes are shown on Page 13.

Beam sizes and other dimensions are shown on Pages 14 and 15.

Multispan covers and frames

Product Selection

Refer to the table to identify which cover and beam configuration you require against pit clear opening length (L) and pit clear opening span (S). All dimensions are in millimetres.

		Pit clear opening length (L) mm												Beam centres mm																																																				
		2 parts					3 parts					4 parts					Beam centres mm																																																	
		1200	1350	1500	1650	1800	1900	2050	2200	2350	2500	2650	2800	2600	2750	2900	3050	3200	3350	3500	3650	3800	A	B	C	D	E																																							
Pit clear opening span (S) mm	2 parts 1 beam																																																																	
		4 part (2x2) multispan cover with 1 removable support beam					6 part (3x2) multispan cover with 1 removable support beam					8 part (4x2) multispan cover with 1 removable support beam																																																						
	1370																					685					685																																							
	1520																										835					685																																		
	1670																										835					835																																		
	1820																															985					835																													
	1970																															985					985																													
3 parts 2 beams	2140																																																																	
	2290																															685					770					685																								
	2440																															685					920					685																								
	2590																															835					770					835																								
	2740																															835					920					835																								
	2890																																				985					920					985																			
	3040																																				985					1070					985																			
4 parts 3 beams	3210																																																																	
	3360																																				685					770					770					685														
	3510																																				835					770					770					835														
	3660																																				835					920					920					685														
	3810																																				835					920					920					835														
	3960																																									985					920					920					835									
	4110																																									985					920					920					985									
	4260																																									985					1070					1070					835									
	4410																																									985					1070					1070					985									
5 parts 4 beams	3680																																																																	
	3830																																									685					770					770					770					685				
	3980																																									835					770					770					770					835				
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	4430																																									835					920					920					920					835				
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	5030																																									985					1070					920					1070					985				
	5180																																									985					1070					1070					1070					985				
		10 part (2x5) multispan cover with 4 removable support beams					15 part (3x5) multispan cover with 4 removable support beams					20 part (4x5) multispan cover with 4 removable support beams																																																						

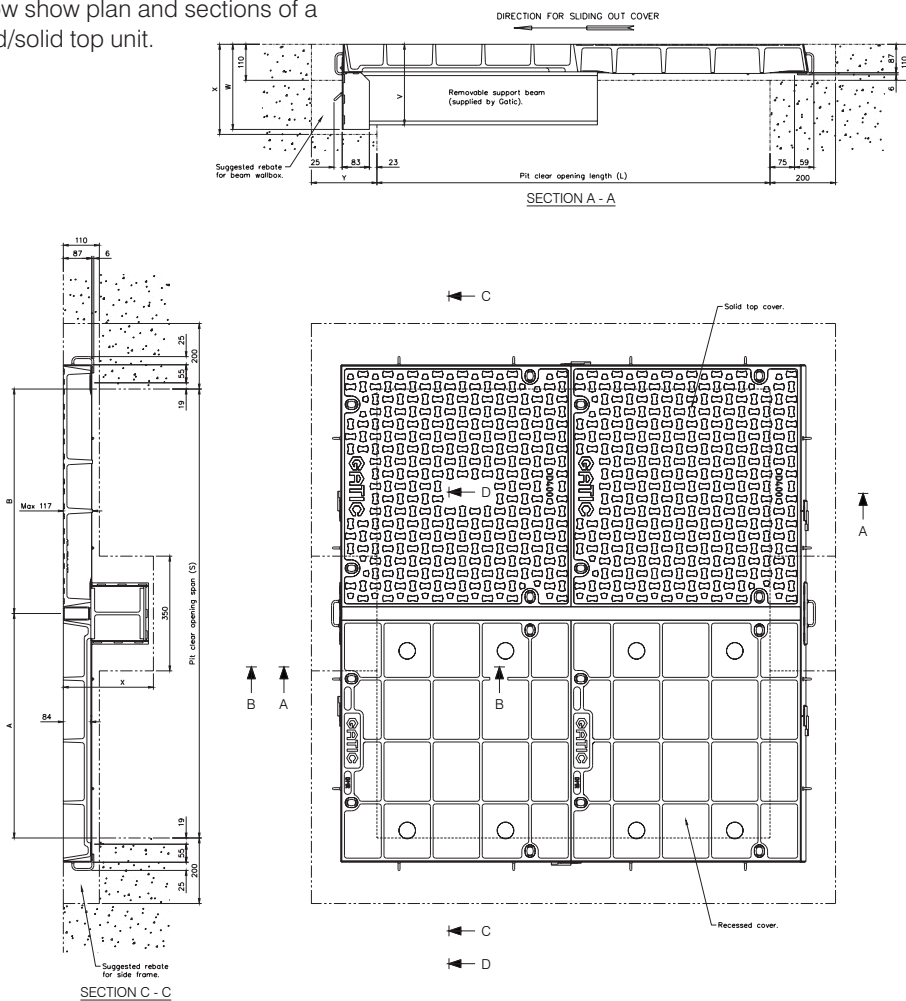
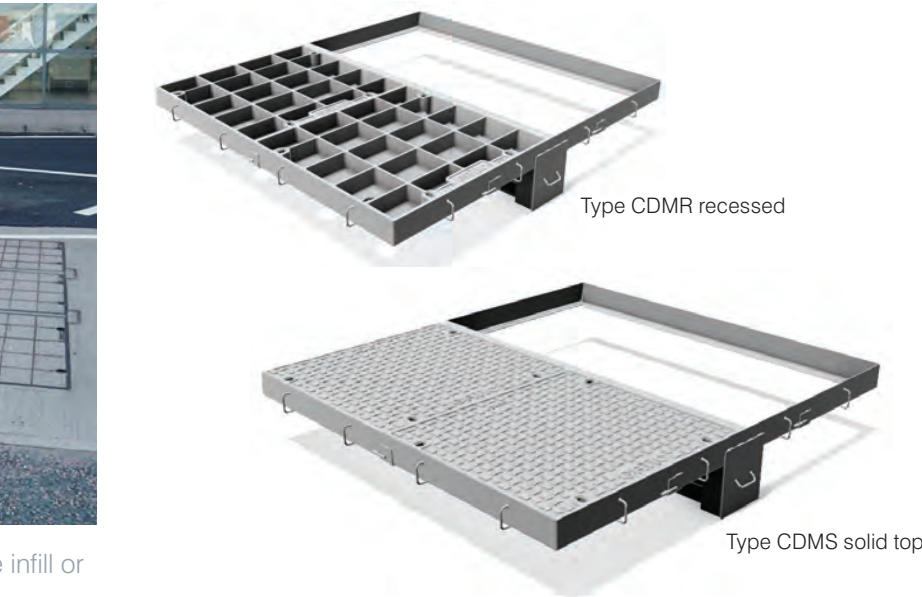
Note: For other pit clear opening sizes please refer to our technical department

GATIC®COEX – Heavy Duty
 Multispan covers and frames



- Covers recessed for concrete infill or solid top
- Cover types: CDMR (recessed) CDMS (solid top)

The details below show plan and sections of a typical recessed/solid top unit.



Multispan covers and frames



Beam Size
 The required beam size for Multispan covers is dependent on the pit clear opening length and the loading group.

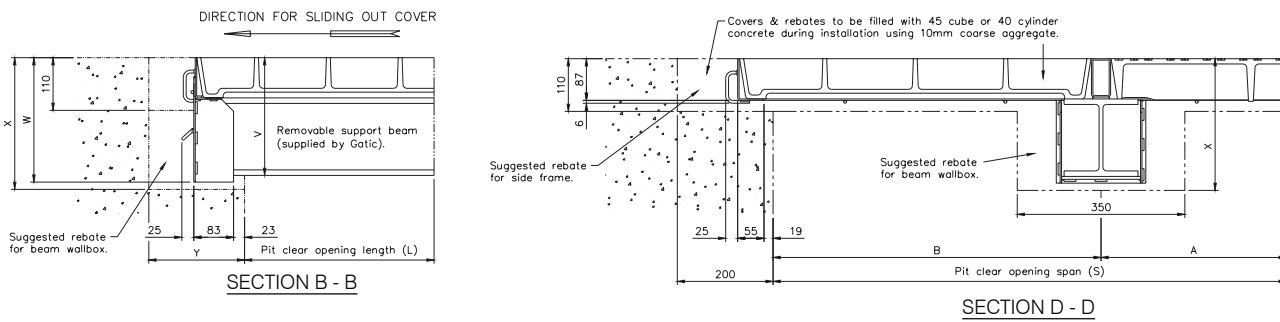
The table shows maximum beam length against beam size. The removable support beams are supplied by Gatic.

The table also indicates dimensions of the beam wallbox and rebate to suit different beam sizes. See also the accompanying section details.



Support beam size chart

Removable support beam size	Max pit clear opening length (L)	Beam wallbox dimensions			
		V	W	X	Y
152 x 152 x 37kg/m UC	1350	246	256	285	200
203 x 152 x 52kg/m RSJ	1800	287	297	325	200
305 x 165 x 54kg/m UB	2350	395	405	435	200
356 x 171 x 67kg/m UB	2900	448	458	490	300
457 x 152 x 82kg/m UB	3350	549	559	585	300
533 x 210 x 122kg/m UB	3800	629	639	665	300



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COEX offers an ideal economical solution for use on all projects where the safe protection of underground services and equipment is required.

- Gas and electricity sites
- Power stations/sub stations
- Sewerage and water treatment works/pumping stations
- Commercial and industrial sites

