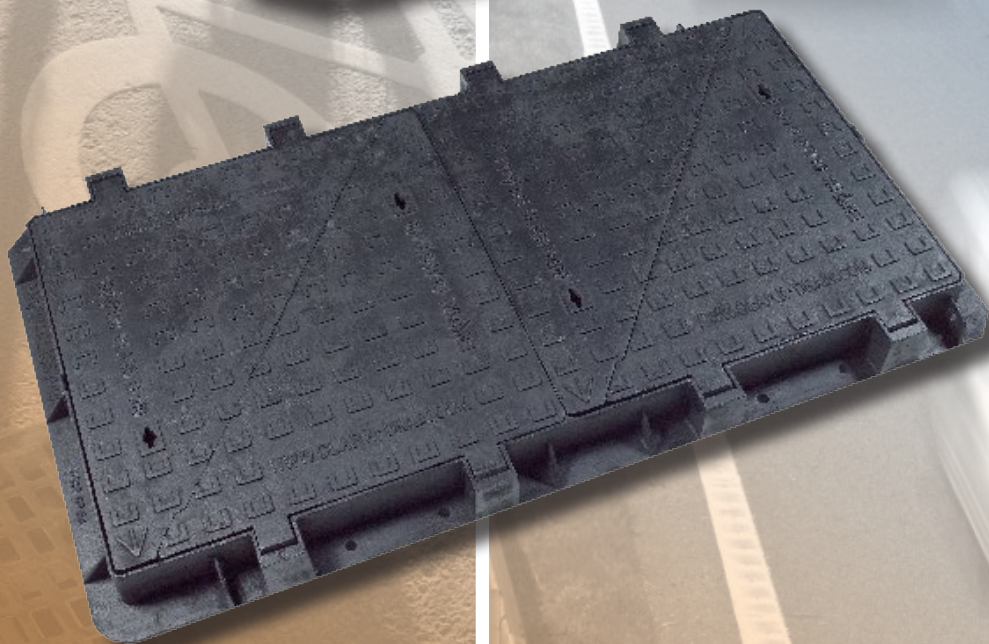


**CLARK-DRAIN**



THE DRAINAGE COMPANY

# PRODUCT SELECTOR



**HIGHWAYS, COMMERCIAL ACCESS  
AND ESTATE ROADS**

## MEETING THE BS EN 124 STANDARD

The European standard BS EN 124-2:2015 applies to gully tops and manhole tops with a clear opening up to and including 1000mm, for installation within areas subjected to pedestrian and/or vehicular traffic. All our ductile iron covers, gratings and frames meet the 2015 standard. Other ductile iron covers with steel or plastic frames comply to the 1994 standard. Further quality assurance is provided by the British Standard Kitemark.

- The diagram below shows the location of some of these groups in a highway environment.
- The various places of installation have been divided into groups numbered 1 to 6.
- A guide as to which class of manhole top or gully top should be used is shown in parenthesis for each group. Please note that in the Clark-Drain range of ductile iron manhole tops the D400 variants have been sub-divided into 3 further categories dependent on specific install location and traffic usage. Care should be taken to select the correct version for each application.
- The selection of the appropriate class is the responsibility of the designer. Where there is any doubt the stronger class should be selected. For clarification of any loading requirements contact our Technical Team.

## D400 DUCTILE IRON MANHOLE COVER CATEGORIES

To ensure the right products are specified and selected we provide 3 types of D400 products:

**Non-carriageway D400 products** (e.g. CD 70I KMD, CD 1659 KMD, etc.)

Suitable for use in areas subjected to slow-moving vehicles only, including occasional HGVs. Car-parks, cul-de-sacs, retail delivery areas, private access roads, etc. Not suitable for use in carriageways.

**Carriageway D400 products** (CD 70IH KMD, CD 695H KMD, etc.)

Suitable for use in carriageways subject to low-density traffic including HGVs, fast or slow-moving.

**Heavy-duty D400 products** (e.g. CD 90IH KMD, CD 902H KMD, etc.)

Suitable for use in carriageways subject to high-density traffic, fast or slow-moving.



### GROUP 1 (MIN CLASS A15)

Areas which can only be used by pedestrians and pedal cyclists.

### GROUP 2 (MIN CLASS B125)

Footways, pedestrian areas and comparable areas, car parks or car parking decks.

### GROUP 3 (MIN CLASS C250)

For gully tops installed in the area of kerbside channels of roads (see diagram above) which when measured from the kerb edge extend a maximum of 0.5m into the carriageway and a maximum of 0.2m into the footway.

### GROUP 4 (MIN CLASS D400)

Carriageway of roads (including pedestrian streets), hard shoulders (see diagram above) and parking areas for all types of road vehicles.

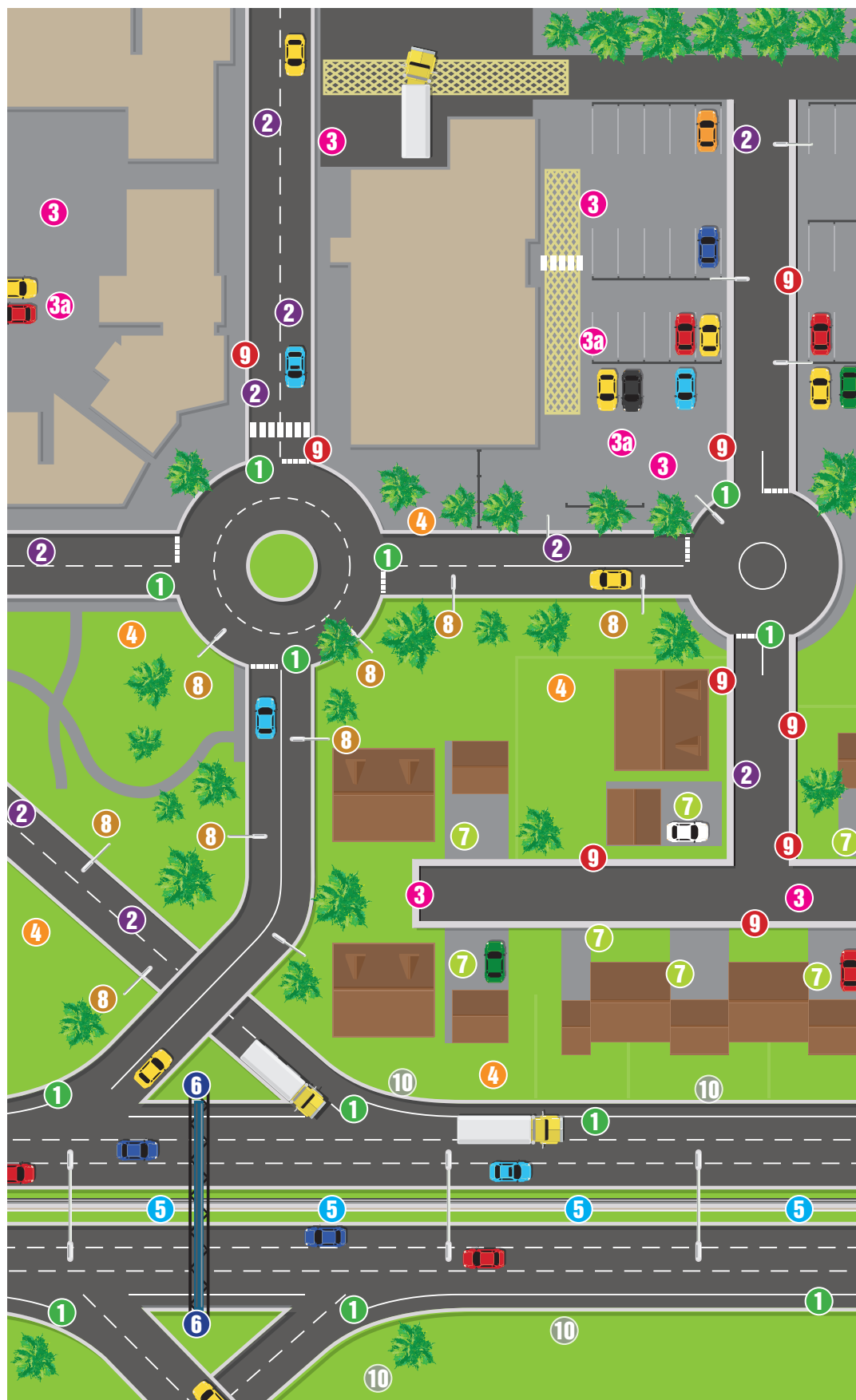
### GROUP 5 (MIN CLASS E600)

Areas imposing high wheel loads eg. docks.

### GROUP 6 (MIN CLASS F900)

Areas imposing particularly high wheel loads eg. aircraft pavements.

# MULTI-APPLICATIONS FOR HIGHWAYS, COMMERCIAL ACCESS AND ESTATE ROADS



- 1**  
Heavy duty –  
Compliant to HA 104/09  
(high-risk areas)
- 2**  
Carriageway –  
Compliant to HA 104/09  
(low-risk areas)
- 3 3a**  
Non-carriageway
- 4**  
Pedestrian
- 5**  
Central Reservation
- 6**  
Motorway  
Communications
- 7**  
Pavement/Driveways
- 8**  
Lighting columns/  
Traffic lights
- 9**  
Footpaths
- 10**  
Hard Shoulders

The 'At-A-Glance' highways view provides a quick reference guide to product selection and enables the application to be identified quickly and conveniently

# ACCESS COVERS

## D400 High Max Cover and Frame EN124

Suitable for use in carriageways subject to high-density traffic, fast or slow-moving areas

Code	Clear opening size (mm)	Depth (mm)	Description	Application
CD 90IH KMD	600 x 600	100	Double-tri ductile iron	①
CD 90IAH KMD	600 x 600	150	Double-tri ductile iron	①
CD 902H KMD	675 x 675	100	Double-tri ductile iron	①
CD 902AH KMD	675 x 675	150	Double-tri ductile iron	①



CD 90IAH KMD

## D400 Hinged Cover and Frame EN124

Suitable for use in carriageways subject to low-density traffic including HGVs, fast or slow moving

Code	Clear opening size (mm)	Depth (mm)	Description	Application
CD 705 KMD	600 Dia.	100	Circular hinged ductile iron	③
CD 1660H KMD	675 x 675	100	Hinged double-tri ductile iron	②
CD 1664AH KMD	900 x 600	150	Hinged double-tri ductile iron	②
CD 1667AH KMD	900 x 900	150	Hinged double-tri ductile iron	②



CD 1660H KMD

## D400 Multi-Tri Cover and Frame EN124

Suitable for use in carriageways subject to low-density traffic, fast or slow moving areas

Code	Clear opening size (mm)	Depth (mm)	Description	Application
CD 693H KMD	1200 x 675	100	Quad-tri ductile iron	②
CD 693AH KMD	1200 x 675	150	Quad-tri ductile iron	②
CD 694AH KMD	1800 x 675	150	Quad-tri ductile iron	②
CD 695H KMD	1500 x 750	100	Quad-tri ductile iron	②



CD 693AH KMD

## D400 Double-Tri (Solid flange) Cover and Frame EN124

Suitable for use in carriageways subject to low-density traffic including HGVs, fast or slow moving

Code	Clear opening size (mm)	Depth (mm)	Description	Application
CD 70IH KMD	600 x 600	100	Double-tri ductile iron	②
CD 70IAH KMD	600 x 600	150	Double-tri ductile iron	②
CD 1659H KMD	675 x 675	100	Double-tri ductile iron	②
CD 1659AH KMD	675 x 675	150	Double-tri ductile iron	②
CD 750H KMD	750 x 600	100	Double-tri ductile iron	②
CD 750 AH KMD	750 x 600	150	Double-tri ductile iron	②
CD 753H KMD	750 x 750	100	Double-tri ductile iron	②
CD 75IH KMD	900 x 900	100	Double-tri ductile iron	②
CD 752H KMD	900 x 600	100	Double-tri ductile iron	②
CD 752AH KMD	900 x 600	150	Double-tri ductile iron	②



CD 70IH KMD

## D400 Double Tri (Skeletal flange) Cover and Frame EN124

Suitable for use in non-carriageway areas subjected to slow moving vehicles including occasional HGVs

Code	Clear opening size (mm)	Depth (mm)	Description	Application
CD 770 KMD	300 x 300	100	Double-tri ductile iron	3
CD 755 KMD	450 x 450	100	Double-tri ductile iron	3
CD 756 KMD	600 x 450	100	Double-tri ductile iron	3
CD 701 KMD	600 x 600	100	Double-tri ductile iron	3
CD 701A KMD	600 x 600	150	Double-tri ductile iron	3
CD 1659 KMD	675 x 675	100	Double-tri ductile iron	3
CD 1659A KMD	675 x 675	150	Double-tri ductile iron	3



CD 1659 KMD

## D400 Solid Top Cover and Frame EN124

Suitable for use in busy built up areas where double seal design is required for odour control

Code	Clear opening size (mm)	Depth (mm)	Description	Application
CD D600H-DSL	600 x 600	100	Solid top ductile iron	3



CD D600H-DSL

## D400 Recessed Cover and Frame EN124

Suitable for use in busy built up areas where double seal design is required for odour control. Designed for tarmac or concrete infill and paviour

Code	Clear opening size (mm)	Depth (mm)	Description	Application
CD D630J -DSL*	600 x 600	125	Recessed ductile iron	3

\*Double sealed for odour control. Requires grease. Sold separately.



CD D630J-DSL

## C250 Recessed Cover and Frame EN124

Suitable for use in busy built up areas where double seal design is required for odour control. Designed for tarmac or concrete infill and paviour

Code	Clear opening size (mm)	Depth (mm)	Description	Application
CD C630H -DSL*	600 x 600	128	Recessed ductile iron	3 9

\*Double sealed for odour control. Requires grease. Sold separately.



CD C630H-DSL

# ACCESS COVERS

## B125 Solid Top Covers and Frames EN124

Suitable for use in pavements, driveways, car parks and pedestrian areas where occasional vehicular access is likely, including large 4x4s and fully laden commercial vans



CD B400B-DSL



CD 1657 KMB



CD 777 KMB



CD 761SR KMB+R

Code	Clear opening size (mm)	Depth (mm)	Description	Application
CD 761 KMB	450 x 450	40	Solid top slide out ductile iron	4 6 7 8
CD 762 KMB	600 x 450	40	Solid top slide out ductile iron	4 6 7 8
CD 779 KMB	600 x 450	75	Solid top ductile iron	4 6 7 8
CD 759 KMB	600 Dia.	40	Solid top circular ductile iron	4 7 8
CD 761SR KMB+R**	450 x 450	30	Solid top square to round ductile iron c/w reducer ring	4 7 9
CD 777 KMB	600 x 600	40	Solid top slide out ductile iron	4 6 7 8
CD 778 KMB	600 x 600	75	Solid top ductile iron	4 6 7 8
CD 780 KMB	675 x 675	40	Solid top ductile iron	4 6 7 8
CD 722 KMB	750 x 600	40	Solid top slide out ductile iron	4 6 7 8
CD 752 KMB	900 x 600	40	Solid top slide out ductile iron	4 7 8
CD 1657 KMB	450 Dia.	30	Solid top ductile iron	4 7 8
CD B400B-DSL*	450 x 450	40	Solid top ductile iron (Double seal and Locking)	4 7 8

\*Double sealed for odour control. Requires grease. Sold separately.

\*\*Chamber reducer cuts clear opening size from 450mm to 350mm, for use when chamber depth is greater than 1.2m lessening the risk of entrapment as set out in Part H of the Building Regulations

# GULLEY GRATINGS

## D400 Double Tri (3 and 4-sided flange) EN124

Suitable for use in carriageway kerbside and commercial/industrial areas

Code	Clear opening size (mm)	Depth (mm)	Description	Application
CD 644 KMD	415 x 415	100	Double-tri 3 sided skeletal flange, ductile iron	2
CD 644A KMD	415 x 415	150	Double-tri 3 sided solid flange, ductile iron	2
CD 502 KMD	400 x 440	100	Double-tri 3 sided skeletal flange, ductile iron	2
CD 732 KMD	600 x 600	100	Double-tri 3 sided skeletal flange, ductile iron	2
CD 732H KMD	600 x 600	100	Double-tri 4 sided solid flange, ductile iron	2



CD 644 KMD

## D400 Hinged EN124

Suitable for use in carriageway kerbside and commercial/industrial areas

Code	Clear opening size (mm)	Depth (mm)	Description	Application
CD 178 KMD	385 x 317	100	Hinged ductile iron, skeletal flange	2
CD 180 KMD	430 x 370	100	Hinged ductile iron, skeletal flange	2
CD 180 KMDL	430 x 370	100	Hinged ductile iron, solid flange (Locked)	2
CD 180A KMD	430 x 370	150	Hinged ductile iron, solid flange (Locked)	2
CD 179 KMD	510 x 360	100	Hinged ductile iron, skeletal flange	2
CD 184S KMD	425 x 425	100	Hinged ductile iron, skeletal flange	2
CD 185S KMD	450 x 450	100	Hinged ductile iron, solid flange	2



CD 178 KMD

## D400 Mesh EN124

Suitable for use in carriageway kerbside and commercial/industrial areas

Code	Clear opening size (mm)	Depth (mm)	Description	Application
CD 185 KMD	452 x 452	100	Hinged cycle-friendly ductile iron, solid flange	2
CD 231 KMD	430 x 370	100	Hinged cycle-friendly ductile iron, solid flange	2



CD 231 KMD

## D400 V-Gully EN124

Suitable for use in carriageways/highways and commercial/industrial areas

Code	Clear opening size (mm)	Depth (mm)	Description	Application
CD 733H KMD	628 x 628	150	Dished V profile ductile iron	5



CD 733H KMD

# GULLEY GRATINGS

## C250 Hinged

Suitable for use in kerbside areas

Code	Clear opening size (mm)	Depth (mm)	Description	Application
CD 60 DDI KMC	302 x 302	75	Hinged ductile iron (dished)	3 7 9
CD 128 KMC	336 x 308	75	Hinged ductile iron	3 7 9
CD 232 KMC	336 x 308	100	Hinged ductile iron (mesh grating)	3 7 9
CD 129 KMC	336 x 308	100	Hinged ductile iron	3 7 9
CD 131 DL KMC	390 x 315	100	Hinged ductile iron (dished and locked)	3 7 9
CD 127 KMC	440 x 335	75	Hinged ductile iron	3 7 9
CD 130 KMC	440 x 335	100	Hinged ductile iron	3 7 9



CD 131 DL KMC

## B125 Hinged

Suitable for use in pedestrian areas and driveways

Code	Clear opening size (mm)	Depth (mm)	Description	Application
CD 172 KMB	280 Dia.	50	Hinged ductile iron with circular clear opening	9



CD 172 KMB

# SURFACE BOXES

## Double Tri

Suitable for use in carriageways carrying fast-moving commercial vehicles having wheel loads up to 5 tonnes

Code	Clear opening size (mm)	Depth (mm)	Description	Application
CD 841	150 x 150	100	Double-tri Grade A surface box	2 9
CD 845	225 x 225	100	Double-tri Grade A surface box	2 9
CD 843	300 x 300	100	Double-tri Grade A surface box	2 9
CD 840	380 x 230	100	Double-tri Grade A surface box	2 9
CD 842	430 x 280	100	Double-tri Grade A surface box	2 9



CD 841

'AV', 'G', 'W', 'FH' or 'SV' badged options are available.

## Solid Top

Suitable for use in carriageways carrying fast-moving commercial vehicles having wheel loads up to 5 tonnes

Code	Clear opening size (mm)	Depth (mm)	Description	Application
CD 847	380 x 230	100	Solid top Grade A surface box	2 9
CD 844	300 x 300	100	Solid top Grade A surface box	2 9



CD 847

'AV', 'G', 'W', 'FH' or 'SV' badged options are available.

## D400 Galvanised steel edged channel with ductile iron grating



CD D10-L00G-21  
Class D400 100mm wide galvanised steel  
edged channel with ductile iron slotted  
grating



CD D10-L00G-27  
Class D400 100mm wide galvanised  
steel edged channel with ductile iron  
narrow slotted grating



CD D15-L10G-27  
Class D400 150mm wide galvanised steel  
edged channel with ductile iron narrow  
slotted grating



CD D20-L10G-21  
Class D400 200mm wide galvanised  
steel edged channel with ductile iron  
slotted grating

Width (mm)	Description	Constant depth	Application
100	Polymer concrete channel c/w ductile iron slotted grating and locking bar and bolt	L00, L10, L20	3a
100	Polymer concrete channel c/w ductile iron narrow slotted grating and locking bar and bolt	L00, L10, L20	3a
150	Polymer concrete channel c/w ductile iron narrow slotted grating and locking bar and bolt	L00, L10, L20, L30	3a
200	Polymer concrete channel c/w ductile iron narrow slotted grating and locking bar and bolt	L10, L20, L30	3a
300	Polymer concrete channel c/w ductile iron slotted grating and locking bar and bolt	L10, L20, L30	3a

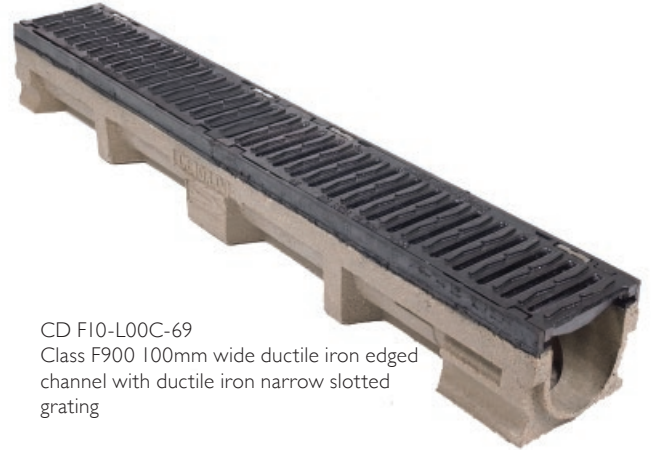
Junction sections and silt boxes c/w gratings are also available.

# LINEAR DRAINAGE

## F900 Ductile iron edged channel with ductile iron grating



CD FI0-L00C-63  
Class F900 100mm wide ductile iron edged channel with ductile iron slotted grating



CD FI0-L00C-69  
Class F900 100mm wide ductile iron edged channel with ductile iron narrow slotted grating



CD FI5-LI0C-63  
Class F900 150mm wide ductile iron edged channel with ductile iron slotted grating



CD F20-LI0C-69  
Class F900 200mm wide ductile iron edged channel with ductile iron narrow slotted grating

Width (mm)	Description	Constant depth	Pre-sloped	Application
100	Polymer concrete channel c/w ductile slotted grating and boltless catchlock system	L00, L10, L20	001 TO 020	⑤ ⑩
100	Polymer concrete channel c/w ductile narrow slotted grating and boltless catchlock system	L00, L10, L20	001 TO 020	⑤ ⑩
150	Polymer concrete channel c/w ductile slotted grating and boltless catchlock system	L00, L10, L20, L30	-	⑤ ⑩
150	Polymer concrete channel c/w ductile narrow slotted grating and boltless catchlock system	L00, L10, L20, L30	-	⑤ ⑩
200	Polymer concrete channel c/w ductile slotted grating and boltless catchlock system	L10, L20, L30	-	⑤ ⑩
200	Polymer concrete channel c/w ductile narrow slotted grating and boltless catchlock system	L10, L20, L30	-	⑤ ⑩
300	Polymer concrete channel c/w ductile slotted grating and boltless catchlock system	L10, L20, L30	-	⑤ ⑩
300	Polymer concrete channel c/w ductile narrow slotted grating and boltless catchlock system	L10, L20, L30	-	⑤ ⑩

Junction sections and silt boxes c/w gratings are also available.

## CHAMBER ACCESS SYSTEMS

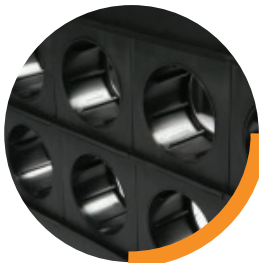
Clark-Drain manufacture chamber access systems for use in traffic signalling, lighting and motorway communications. These are supplied complete with D400 and B125 covers BSI Kitemark certified to BS EN 124 and include chamber furniture, i.e. bearer bars, step irons and pre-configured duct holes manufactured to a customers' precise requirements. Excellent durability and loading performance results from a uniform lattice structure inside the chamber walls.



Internal bearer bars stabilise the chamber wall and prevent ring movement



Factory fitted step irons designed, manufactured and tested to EN 13101:2002



Mandrel test friendly chamber bell mouths



## Ductile Iron Covers

	Clear opening size (mm)													
Description	300 x 300	450 x 450	600 x 450	600 x 600	675 x 675	750 x 600	750 x 750	900 x 600	900 x 900	1200 x 600	1200 x 675	1500 x 750	1800 x 675	Application
Access chamber complete with B125 ductile iron cover		✓	✓	✓	✓	✓								<div><div>4</div><div>6</div><div>7</div><div>8</div><div>9</div></div>
Access chamber complete with C250 ductile iron cover				✓										<div><div>6</div><div>7</div><div>8</div></div>
Access chamber complete with D400 ductile iron cover	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	<div><div>2</div><div>3</div></div>

Ring sections are to 150mm depth



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Due to our continual development programme, we reserve the right to upgrade products without prior notice.  
All products must be installed in accordance with Clark-Drain installation guidelines.

