

CLARK-DRAIN



THE DRAINAGE COMPANY

CLARK-DRAIN AT A GLANCE



50 years serving the
construction industry

Welcome

Clark-Drain is renowned all over the world for the innovative drainage products it brings to the market.

We have been offering intelligent solutions to the construction industry since 1962, and provide a wide range of products across all sectors and applications coupled with the highest levels of customer service.

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MANY CHOICES. ONE RELIABLE SOURCE.

Through design, manufacture and distribution we set out to deliver products of recognised quality which can contribute in a positive way to the installation, operation and maintenance of drainage products. Clark-Drain offer a comprehensive range of products that are engineered to include standard and optional features that help to improve durability, operator safety, asset security and performance.

SAFETY FIRST AND FOREMOST

It is a guiding principle of Clark-Drain to consider the health and safety of all individuals who use our products. We recognise that we have a duty to take all reasonable steps to promote and maintain safe and healthy working conditions. It is part of our culture and an integral part of our commitment to employee welfare and to users of our products.

QUALITY ASSURANCE

All Clark-Drain linear drainage products meet the new Construction Product Regulations that came into effect on 1 July 2013 and are CE marked to comply with EU legislation. Our cast iron gully gratings and access covers also conform to legislation and are kitemark certified to BS EN 124.

All work is carried out under a BS EN ISO 9001 quality management system to provide consistency and improvement of working practices and assure customers that our products and services meet their requirements.

DELIVERING YOUR NEEDS

Our considerable manufacturing capacity for plastic, steel and cast iron products, extensive stock holding and distribution capabilities enables us to offer same day despatch with delivery within 3 working days, for standard stocked items.

Round Solid Top Cover 450mm PPIC Chamber

CD 452

- Circular polypropylene cover and frame
- Tested to 35kN, suitable for domestic driveway loading
- Dual locking (the lid locks to the frame and the frame locks to the chamber)
- Suitable for all major manufacturer's PPIC chambers
- Light and easy to install, ideal for tarmac, grass and gravel. Unique slip resistant surface tread pattern.

CD 499 reducer

If you have an inspection chamber deeper than 1.2m the regulations call for the clear opening to be reduced to 350mm. Our solution is the CD 499 reducer.

CD U455 riser

- 450mm diameter riser complete with sealing ring effective height 300mm with an overall height of 340mm
- Grooves on the riser enable easier cutting if needed

CD U453 base

- 450mm diameter 5 x 110mm inlets/outlets. 30mm height
- Chamber base c/w 3 bungs and 3 blanking plates. 1, 2 or 3 flows can be stopped by using the bungs and the blanking plates. The blanking plates reduce waste being deposited in the unused inlet(s).



300mm Circular and Square Solid Top Covers

Complete Polypropylene Inspection Chambers

All 300 series covers, risers and bases are made from 100% recycled polypropylene. Chamber assemblies can satisfy maximum inverts up to 0.4m and 0.6m as stated in the Building Regulations Part H. For use directly with 110mm plastic pipe work. Risers may be cut to achieve required invert depth.

FEATURES

Cover and frame

- For either pedestrian or domestic driveway use (depending on cover selection for 15kN or 35kN loading)
- 15° tilt action enables easy levelling on sloped surfaces

Riser

- Shallow inspection chamber with rib design for added strength against distortion
- Choice of riser with effective depth of 190mm and 400mm

Base

- Three and five outlet options for multiple directional flow of waste water and layout flexibility

CD U3002

300mm Diam. Clear Opening Circular Lid Assembly with riser and 3 inlet base - 15kN loading suitable for pedestrian areas.

CD 300



- Suitable for domestic driveways
- Circular opening in frame fits CD U354 and CD U355 riser
- Supplied with 4 locking screws



Product Code	Clear Opening (mm)	Overall Frame Size (mm)	Loading
CD 300	220-300 Dia	438 x 438 x 37*	35kN

*Not including reducer steps

For our full range of polypropylene inspection chambers call us today on 01733 765317 to request a brochure

SALES@CLARK-DRAIN.COM

WWW.CLARK-DRAIN.COM

STEEL COVERS

LINEAR DRAINAGE

DUCTILE IRON
COVERSBESPOKE STEEL
COVERSUNDERGROUND
PIPES AND FITTINGS

Square Frame Solid Top Cover

450mm PPIC Chamber

Clark-Drain have developed the most effective and safety conscious polypropylene inspection covers. Compliant to Part H of the Building Regulations 2002.

Part H refers to drainage and waste disposal and states: 'Small lightweight access covers will have to be secured (eg. with screws) to deter unauthorised access.'



FEATURES

- Dual locking facility
- 35kN driveway loading
- Extended frame for levelling to surrounding surfaces
- New deeper frame
- Square frame with unique circular lid for ease of access and installation
- Fits all major manufacturer's PPIC Chambers
- Enhanced slip resistant surface tread
- Can be used with CD 499 restricted access reducer (optional)



CD 456



15° tilt action

Product Code	Clear Opening (mm)	Overall Frame Size (mm)	Loading
CD 456	450 diameter	560 x 560 / 133.5	35kN

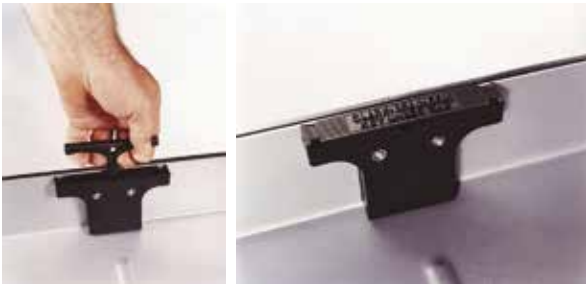
Square to Round Recessed Cover and Frame

Since the nineties the majority of newly built houses have had circular plastic inspection chambers installed. Following extensive market research Clark-Drain developed the CD 300SR which enables the frame to be easily connected to the top of all shallow inspection chambers.

FEATURES

- Circular opening in frame fits all major manufacturer's PPIC shallow inspection chambers (Multi fit 220-300 Chambers)
- More accessible (fits directly on the chamber)
- Corrosion resistant
- Aesthetically pleasing
- Driveway loading 35kN
- Integral lifting keys
- Polypropylene cover and frame
- Quick and easy to install
- The tray can be rotated to match the direction of paving
- Eliminates the need to cut the paving around a circular opening
- Made from recycled material

Integral handle tested to withstand 120kgs of direct lift



Fits all major shallow inspection chambers



Reducer Steps



Product Code	Clear Opening (mm)	Tray Depth (mm)	Overall Frame Size (mm)	Loading
CD 300SR	300 diameter	80	438 x 438 / 93*	35kN

*Overall frame size does not include reducer steps

Recessed Cover for Garden and Soft Landscapes

The Chameleon®

Ideal for landscaping, the CD 470 replaces unattractive manhole covers in lawns, bedding areas and footpaths using a 100mm deep recess design which enables a variety of infills including grass, bark, turf, soil and grass seed, chippings, gravel and plants.



CD 470

FEATURES

- Pedestrian load rating
- Recessed for infill with landscaping materials (soil, gravel etc.)
- Corrosion resistant, 100% recyclable black polypropylene
- Integral 3-point screw locking
- Retrofits to existing 450mm diameter PPIC to disguise manhole cover with surroundings
- Supplied with 2 lifting keys
- Drainage holes in base of tray

The answer to unsightly manhole covers



Product Code	Clear opening (mm)	Internal Tray Depth (mm)	Overall Frame Size (mm)	Loading
CD 470	450 diameter	100	496	15kN

Load Class Descriptions

Galvanised Steel Products

For our steel products, loading classes range from 2.5 tonnes to 38 tonnes gross plated weight. The appropriate loading class depends on the place of installation as indicated below. Where there is any doubt the higher load class should be selected.

Clark-Drain Ref. A

**GROSS PLATED WEIGHT:
2.5 TONNE**

For pedestrian use.



Clark-Drain Ref. B

GROSS PLATED WEIGHT: 5 TONNE

Will support a slow moving wheel load of 1.25 tonnes. Recommended for domestic driveway applications.



Clark-Drain Ref. C

**GROSS PLATED WEIGHT:
10 TONNE**

Will support a slow moving wheel load of 2.5 tonnes. Restricted access and service areas.



Clark-Drain Ref. D

**GROSS PLATED WEIGHT:
17 TONNE**

Will support a slow moving wheel load of 4.25 tonnes. Small rigid commercial vehicles.



Clark-Drain Ref. E

**GROSS PLATED WEIGHT:
25 TONNE**

Will support a slow moving wheel load of 6.25 tonnes. Pedestrian precincts, commercial delivery access and emergency services.



Clark-Drain Ref. F

**GROSS PLATED WEIGHT:
38 TONNE**

Will support a slow moving wheel load of 9.5 tonnes. Petrol forecourt and articulated lorries.



OTHER TRAFFIC

Clark-Drain must be notified if inspection covers ordered are to carry vehicles with non pneumatic tyres eg. forklifts, mobile cranes, short wheel trollies, plus aircraft or any other abnormal traffic.



Square to Round Recessed Cover and Frame



The polypropylene frame of our CD 450SR can be easily connected to the top of all major manufacturer's 450 PPIC inspection chambers.

To be used where new block paving is being installed over areas with PPIC inspection chambers.

FEATURES

- Driveway Loading
- Integral lifting keys
- Galvanised tray can be rotated to fit within the frame
- Galvanised to BS EN 1461
- Quick and easy to install
- Cover can be turned to match direction of paving
- Eliminates the need to cut paving around a circular opening
- Aesthetically pleasing
- Designed to fit a 450 PPIC chamber



Supplied with integral handle



Integral handle tested to withstand 120kgs of direct lift



**MARSHALLS
APPROVED**

Marshalls
Creating Better Landscapes

Product Code	Clear Opening (mm)	Tray Depth (mm)	Overall Frame Size (mm)	Loading
CD 450SR	450 diameter	80	580 x 580 x 88*	10T GPW

CLARK-DRAIN



THE DRAINAGE COMPANY

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Recessed Cover and Frame For Driveways

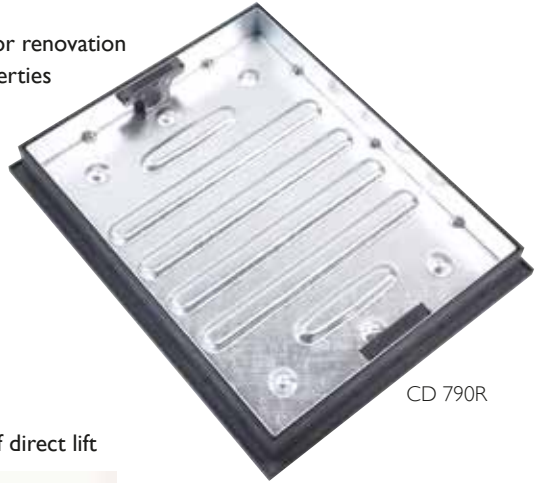


POLYPROPYLENE
COVERS

Driveway loading recess covers – primarily for renovation and replacement of manhole covers on properties that were built prior to using circular PPIC.

FEATURES

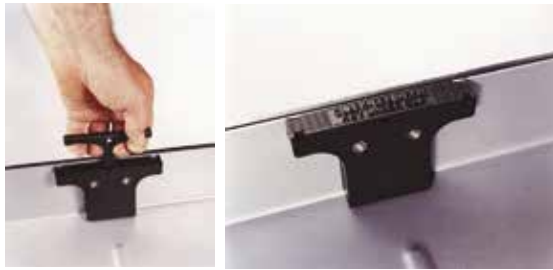
- Recessed for 50/65/80mm paving slabs
- Covers made from galvanised steel
- Black polypropylene and galvanised steel frame options



CD 790R

STEEL
COVERS

Integral handle tested to withstand 120kgs of direct lift



**MARSHALLS
APPROVED**



LINEAR
DRAINAGE

DUCTILE IRON
COVERS

Product Code	Clear Opening (mm)	Internal Tray Depth (mm)	Overall Frame Size (mm)	Loading
*CD 790R	600 x 450	65	695 x 545 x 78	10T GPW
*CD 790R/80	600 x 450	80	695 x 545 x 96	10T GPW
*CD 790R/80/SF ▲	600 x 450	80	650 x 500 x 85	10T GPW
**CD 790R/100 ▲	600 x 450	100	725 x 575 x 107	10T GPW
*CD 791R	600 x 600	80	690 x 690 x 96	10T GPW
**CD 791R/SF ▲	600 x 600	80	725 x 725 x 87	10T GPW
**CD 791R/100 ▲	600 x 600	100	725 x 725 x 107	10T GPW
**CD 793R/100 ▲	750 x 600	100	875 x 725 x 107	10T GPW
**CD 794R/100 ▲	750 x 750	100	875 x 875 x 107	10T GPW
**CD 795R/100 ▲	900 x 600	100	1025 x 730 x 107	10T GPW
**CD 796R/100 ▲	900 x 900	100	1025 x 1025 x 107	10T GPW

*Integral lifting handle

**Requires CD 553 lifting keys (sold separately)

Overall frame size does not include strengthening support. ▲ Steel Frame

RESPOKE STEEL
COVERS

UNDERGROUND
PIPES AND FITTINGS

SALES@CLARK-DRAIN.COM

WWW.CLARK-DRAIN.COM

Recessed Cover and Frame

For Loadings up to 38 Tonne GPW



FEATURES

- Steel covers and frame
- Corner pads for extra secure bedding
- Hot dipped galvanised to BS EN 1461
- Sealed and locking options available on request
- Non standard sizes available on request in galvanised and stainless steel
- Security locking available on request
- Integrated corner lifting key holes (CD 553, CD553L or CD 556 lifting keys required, available separately)



CD 791R/HD100



CD 790R/HD100

Product Code	Clear Opening (mm)	Internal Tray Depth (mm)	Overall Frame Size (mm)	Loading
CD 790R/HD100	600 x 450	100	745 x 595 x 110	38T GPW
CD 791R/HD100	600 x 600	100	745 x 745 x 110	38T GPW

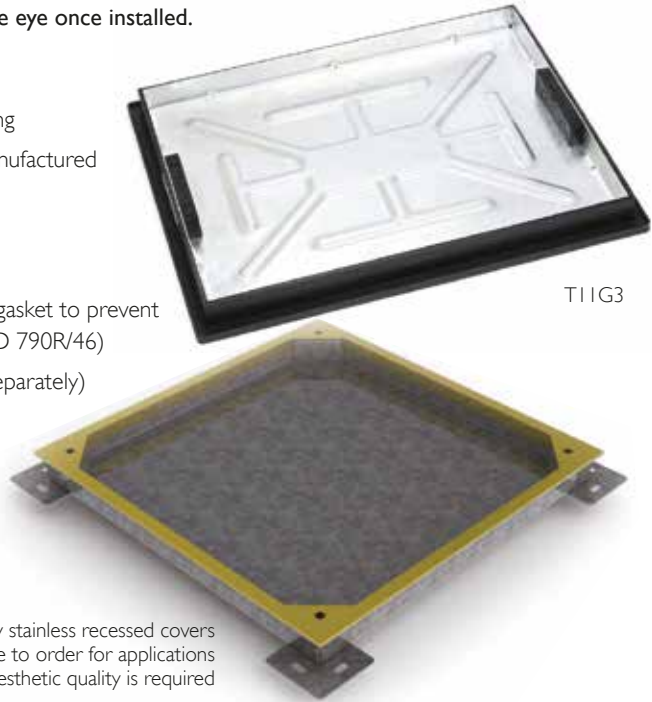
Overall frame size does not include strengthening support

'T' Range Recessed Cover and Frame (Internal Pedestrian Use Only)

The 'T' range suits a wide range of shallow tray applications for internal use and is ideal for a variety of floor coverings such as screed, carpet tiles and many more, leaving it virtually invisible to the eye once installed.

FEATURES

- Up to 900 x 600 clear opening
- Polypropylene frames are manufactured from fully recycled material
- Moulded grouting flange
- Fully interchangeable cover
- Factory fitted rubber sealing gasket to prevent unwanted odours (except CD 790R/46)
- CD 776 key required (sold separately)



Brass/stainless steel or fully stainless recessed covers and frames can be made to order for applications where high aesthetic quality is required

Product Code	Clear Opening (mm)	Internal Tray Depth (mm)	Overall Frame Size (mm)	Loading
*T1G3	300 dia	43.5	440 x 440 x 52	5T GPW
* ◆ CD 450SR/46SL	450 dia	43.5	580 x 580 x 54	5T GPW
* ◆ CD 790R/46	600 x 450	43.5	740 x 590 x 58	5T GPW
*T11G3	600 x 450	43.5	740 x 590 x 58	5T GPW
● T11G3/SF ▲	600 x 450	43.5	740 x 590 x 50	5T GPW
● T16G3	600 x 600	43.5	740 x 740 x 58	5T GPW
● T16G3/SF ▲	600 x 600	43.5	740 x 740 x 50	5T GPW
● T26G3 ▲	750 x 600	43.5	830 x 680 x 60	5T GPW
● T31G3 ▲	750 x 750	43.5	830 x 830 x 60	5T GPW
● T36G3 ▲	900 x 600	43.5	980 x 680 x 60	5T GPW

- CD 776 Lifting key required (sold separately) *Integral lifting handles. ▲ Supplied with steel frames.
◆ Internal or external pedestrian use. Overall frame size does not include strengthening support.

Aqua Knight Recessed Cover and Frame (Internal Pedestrian Use Only)

Our Aqua Knight range of recessed covers and frames are ideal for odour prevention and preventing water ingress in high water table areas.

FEATURES

- Suitable for high water-table areas
- Tapered frame for secure bedding
- Factory fitted (single) neoprene seal
- Water (to 1 metre head of pressure) and odour tight
- Multi-point locking screws
- Lifting keys included



AQK 6045

Product Code	Clear Opening (mm)	Internal Tray Depth (mm)	Overall Frame Size (mm)	Loading
AQK 4545	450 x 450	43.5	550 x 550 x 50	5T GPW
AQK 6045	600 x 450	43.5	700 x 550 x 50	5T GPW
AQK 6060	600 x 600	43.5	700 x 700 x 50	5T GPW
AQK 7560	750 x 600	43.5	850 x 700 x 50	5T GPW
AQK 7575	750 x 750	43.5	850 x 850 x 50	5T GPW
AQK 9060	900 x 600	43.5	1000 x 700 x 50	5T GPW

All AQK range supplied with CD 776 keys. All supplied with Steel Frames.
Overall frame size does not include strengthening support

Solid Top Access Covers

Pressed cover (PC Range)






Clark-Drain design and manufacture a comprehensive range of pressed access covers and frames. Please contact Clark-Drain for advice should you require units over the specifications listed. Gross vehicle plated weight is expressed as the gross weight of road vehicles with pneumatic tyres and four points of road contact.



Mark denotes loading
 Clark-Drain Ref. A = Pedestrian
 Clark-Drain Ref. B = 5 Tonne
 Clark-Drain Ref. C = 10 Tonne



PC7AG

	Product Code	Clear Opening (mm)	Overall Frame Size (mm)	Frame Depth (mm)
Pedestrian  2.5T GPW	PC5AG	450 x 450	513 x 513	30
	PC6AG	600 x 450	663 x 513	30
	PC7AG	600 x 600	663 x 663	30
5 Tonne GPW  5T GPW	PC2BG	300 x 300	363 x 363	30
	PC5BG	450 x 450	513 x 513	30
	PC6BG	600 x 450	663 x 513	30
10 Tonne GPW  10T GPW	PC5CG	450 x 450	513 x 513	30
	PC6CG	600 x 450	663 x 513	30
	PC7CG	600 x 600	663 x 663	30
17 Tonne GPW  17T GPW	PC7DG	600 x 600	663 x 663	30
25 Tonne GPW  25T GPW	PC6EG	600 x 450	663 x 513	30

Overall frame size does not include strengthening support

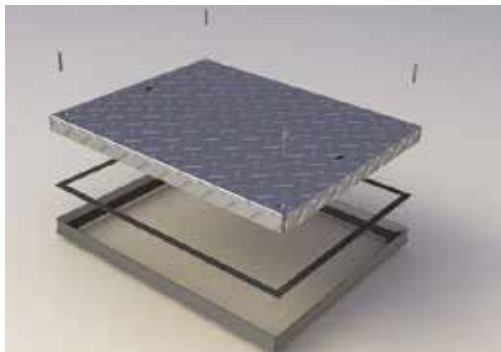
Solid Top Access Covers

Pressed cover (PC Range)


Sealed and Locking



PC7BG3



Products with ratings to FACTA loading classes can be supplied on request (see page 37 for FACTA Guide)

	Product Code	Clear Opening (mm)	Overall Frame Size (mm)	Frame Depth (mm)
5 Tonne GPW  5T GPW	PC5BG3	450 x 450	513 x 513	30
	PC6BG3	600 x 450	663 x 513	30
	PC7BG3	600 x 600	663 x 663	30
10 Tonne GPW  10T GPW	PC6CG3	600 x 450	663 x 513	30

Frame size does not include strengthening support.

Solid Top Access Covers

Chequer Plate

Our C range is a solid top option with galvanised chequer plate covers designed to give excellent slip resistance. This is achieved by having an evenly distributed raised pattern that is integral to the cover.

FEATURES


- Solid top with Durbar tread
- Galvanised steel cover and frame
- Close key holes (keys sold separately)



	Product Code	Clear Opening (mm)	Overall Size (mm)	Frame Depth (mm)
5 Tonne GPW 	C7BG	600 x 600	664 x 664	38
	C9BG	750 x 600	814 x 664	38
	C10BG	750 x 750	814 x 814	38
	C11BG	900 x 600	964 x 664	38
	C12BG	900 x 750	964 x 814	38
	C13BG	900 x 900	964 x 964	38
17 Tonne GPW 	C9DG	750 x 600	814 x 664	38
	C10DG	750 x 750	814 x 814	38
	C11DG	900 x 600	964 x 664	38
38 Tonne GPW 	C7FG	600 x 600	660 x 660	50

Frame depth frame size does not include strengthening support

SEALED AND LOCKING

5 Tonne GPW 	C9BG3	750 x 600	810 x 660	50
	C11BG3	900 x 600	960 x 650	50







Frame depth frame size does not include strengthening support

Linear Drainage Load Class

Our linear drainage series offers a range of products supplied as complete channel and grating systems to meet the requirements of residential, commercial and industrial building projects.

LOADING CLASS DESCRIPTIONS

Our range covers loading classes from A15 to F900 to suit most applications. The appropriate loading class depends on the place of installation as indicated below and is the responsibility of the designer. Where there is any doubt the higher load class should be selected.

Group:	Group 1	Group 2	Group 3	Group 4	Group 5	Group 6
Load Class:	A15	B125	C250	D400	E600	F900
Application:	Pedestrian  CLASS A15	Domestic Driveway  CLASS B125	Car Parks  CLASS C250	Main Highway  CLASS D400	Industrial Areas  CLASS E600	Docks & Airports  CLASS F900

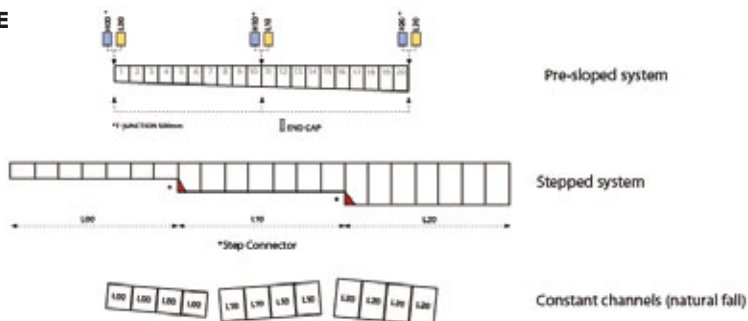
DESIGNED TO CONFORM

All Clark-Drain linear channel products meet the new Construction Product Regulations that came into effect on the 1st July, 2013 and are CE marked to comply with EU legislation. All Clark-Drain polymer concrete channels are manufactured with sealing grooves.

SUPPORT FROM TRUE EXPERTS

To support the specifier and contractor during design and installation, Clark-Drain's experienced professionals offer hydraulic performance calculations and layout advice **call 01733 765317**.

TYPES OF SLOPE OPTIONS:



400 Series CD 401 Garage Pack



FEATURES INCLUDE:

- Competitively priced
- Robust and easy to install
- Male and female slide-lock connection mechanism securely locking each length together
- Self-locking gratings
- Lockable at four points per metre using security screws
- Outlets can be connected to both the underside and the end of the channel



APPLICATIONS:

- Driveways
- Patios
- Gardens
- Play areas



End Cap



Debris trap

CD 401 GARAGE PACK

Consists of:

- 3 x one metre lengths complete with plastic mesh
- 1 x pair of CD 402 End Caps
- 1 x CD 403 Debris Trap
- 1 x installation instructions



POLYPROPYLENE
COVERS

STEEL COVERS

LINEAR DRAINAGE

DUCTILE IRON
COVERS

BESPOKE STEEL
COVERS

UNDERGROUND
PIPES AND FITTINGS

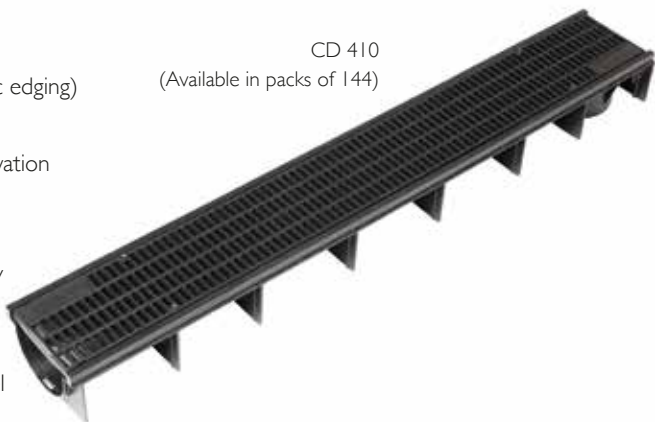
400 Series

Polypropylene Shallow Channel Class A15

FEATURES INCLUDE:

- Lightweight, non-rusting design
- Heat resistant (ideal for tarmac edging)
- Supplied with mesh grating
- Ideal for limited depth of excavation
- Removable grating for easy maintenance and cleaning
- Debris trap available separately
- Grating waterway Area: 600cm² (per metre)
- 'SpringLock' channel-to-channel male/female connection allows several metres of channel to be laid at a time

CD 410
(Available in packs of 144)



- Patios
- Gardens
- Play areas
- Driveways (B125 Block Slot)

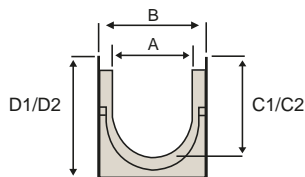
Polypropylene Block Slot
Drainage Class B125

FEATURES INCLUDE:

- B125 load rating classification when installed in block paved areas and C250 when installed in concrete
- Waterway area: 94cm² (per meter)



CD 430
(Available in packs of 80)



Product Code	Length (mm)	Internal Width (mm) A	External Width (mm) B	Internal Height (mm) C1/C2	External Height (mm) D1/D2	Internal Channel Area (cm ²)	Max through flow l/s	End Cap
CD 410	1000	96	148	75/75	92/92	43	2.2	412
CD 430	1000	96*	155	75/75	*194	43	—	412

*Without slot unit. Upstand height is 80mm.

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400 Series Polypropylene Class A15



POLYPROPYLENE
COVERS

STEEL
COVERS

LINEAR
DRAINAGE

DUCTILE IRON
COVERS

RESPOKE STEEL
COVERS

UNDERGROUND
PIPES AND FITTINGS

FEATURES INCLUDE:

- Male and female sliding connections aid installation as several lengths can be laid in one go
- Choice of plastic 'snap-lock' (CD 422) or galvanised steel (CD 425) slot gratings
- Grating waterway area:
CD 422 = 272cm² (per metre)
CD 425 = 291cm² (per metre)
- Available in packs of 64 or 96



Enlarged view showing the provision for screws

APPLICATIONS:

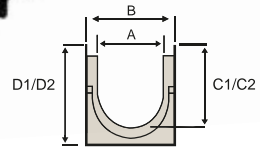
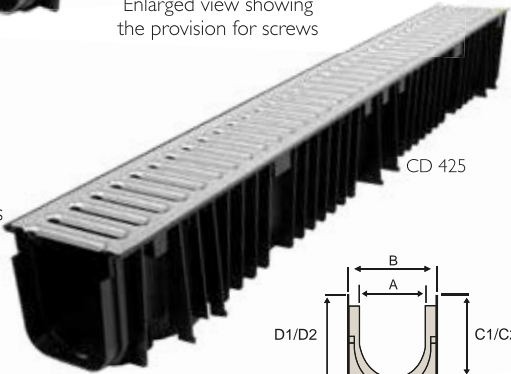
- Garage thresholds
- Play areas
- Patios
- Domestic driveways
- Gardens

ADDITIONAL SECURITY (OPTIONAL):

- Lockable at four points per metre using screws which gives additional security for applications such as schools and public areas

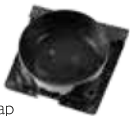
DUAL PURPOSE END CAPS:

- Male and female plain end cap/end cap outlet



CD 406 QUAD CORNER:

- Easy to connect with CD 422 channel



End Cap



Debris trap

Code	Length (mm)	Internal Width (mm) A	External Width (mm) B	Internal Depth (mm) C1/C2	External Depth (mm) D1/D2	Max through flow l/s	Quad Corner	End Cap	Debris Trap
CD 422	1000	100	128	105	117 / 117	4.3	CD 406	CD 402	CD 403
CD 425	1000	100	128	105	117 / 117	4.5	n/a	CD 402	CD 403

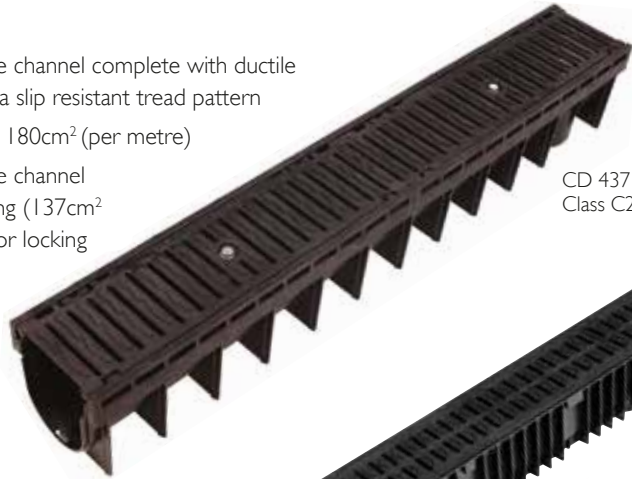
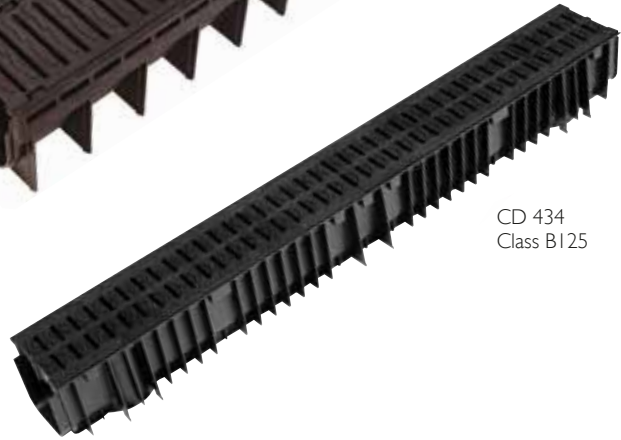
400 Series

Polypropylene Class B125/C250



FEATURES INCLUDE:

- CD 437 is a polypropylene channel complete with ductile iron grating incorporating a slip resistant tread pattern
- Grating Waterway Area = 180cm² (per metre)
- CD 434 is a polypropylene channel complete with nylon grating (137cm² waterway area/Provision for locking screws)

CD 437
Class C250CD 434
Class B125

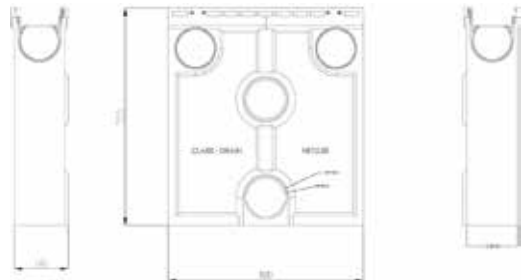
APPLICATIONS:

- Building entrance
- Car parks
- Schools, colleges and universities
- Pedestrian precincts
- Private housing estates
- Driveways
- Communal parking areas
- Railway platforms

SILT BOX



CD 438



Product Code	Length (mm)	Internal Width (mm) A	External Width (mm) B	Internal Depth (mm) C1/C2	External Depth (mm) D1/D2	Internal Channel Area (cm ²)	Max through flow l/s	End Cap	Debris Trap
CD 434	1000	100	128	105/105	117/117	70	4.6	CD 402	CD 403
CD 437	1000	100	147	128/128	158/158	101	6.5	CD 402	CD 403

CLARK-DRAIN



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Class A15

Polymer Concrete Channel Galvanised Steel Slotted Grating



POLYPROPYLENE
COVERS

STEEL
COVERS

LINEAR
DRAINAGE

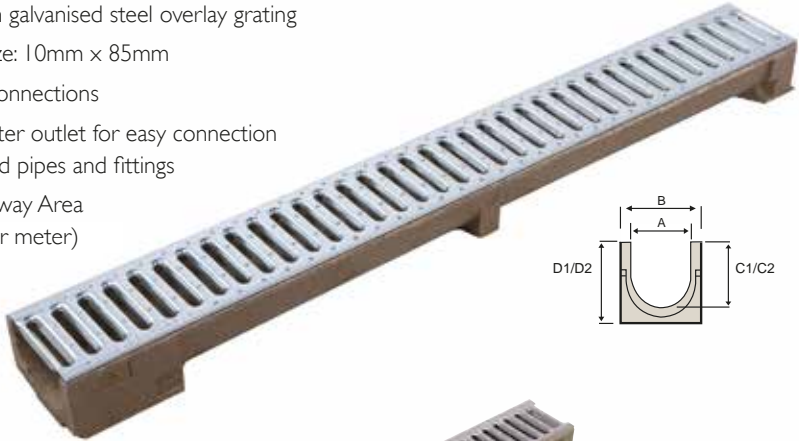
DUCTILE IRON
COVERS

BESPOKE STEEL
COVERS

UNDERGROUND
PIPES AND FITTINGS

CD CS10.10

- Channel manufactured from hard wearing polymer concrete
- Complete with galvanised steel overlay grating
- Grating slot Size: 10mm x 85mm
- Male/Female connections
- 110mm diameter outlet for easy connection to underground pipes and fittings
- Grating Waterway Area = 250 cm² (per meter)



CD CS10.12

- Polymer concrete Silt-Box complete with galvanised steel slotted grating and basket
- Length: 500mm
- Overall Depth: 300mm



CD CS10.30

- Outlet end cap complete with Spigot



CD CS10.31

- Plain end cap



Product Code	Length (mm)	Internal Width (mm) A	External Width (mm) B	Internal Height (mm) C1/C2	External Height (mm) D1/D2	Internal Channel Area (cm ²)	Max through flow l/s
CD CS10.10	1000	100	120	65/65	75/75	42	1.8

Class C250 – D400

Polymer Concrete Linear Drainage

FEATURES INCLUDE:

- Channel manufactured from hard-wearing polymer concrete with galvanised steel or stainless steel edge rail and complete with various grating options
- Shallow options channel available in 60mm and 80mm overall heights
- 100/150/200/300 widths available
- Pre-sloped systems (providing 0.6% fall) and level fall systems available



CD C10-L00G-26

APPLICATIONS:

- Building entrances
- Service stations (non HGV for C250)
- Car parks
- Pedestrian precincts
- Kerbside drainage
- Slow moving light commercial vehicles

**FOR OUR FULL RANGE
PLEASE REFER TO OUR LINEAR
DRAINAGE CATALOGUE.**

CLASS C250

Product Code	Description	Silt Box Product Code
CD C10-L00S-09	100mm wide constant depth channel c/w stainless steel slotted grating	CD C10-SBS-10
CD C10-L00S-52	100mm wide constant depth channel c/w stainless steel perforated grating	CD C10-SBS-53
CD C10-L00G-03	100mm wide constant depth channel c/w galvanised steel slotted grating	CD C10-SBG-04
CD C10-L00G-20	100mm wide constant depth channel c/w ductile iron slotted grating	CD C10-SBG-20
CD C10-L00G-26	100mm wide constant depth channel c/w ductile iron narrow slotted grating	CD C10-SBG-26

CLASS D400

Product Code	Description	Silt Box Product Code
CD D10-L00G-21	100mm wide constant depth channel c/w ductile iron slotted grating	CD D10-SBG-21
CD D10-L00G-27	100mm wide constant depth channel c/w ductile iron narrow slotted grating	CD D10-SBG-27

CLARK-DRAIN



THE DRAINAGE COMPANY

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Class C250 – D400

Grating Options



POLYPROPYLENE
COVERS

STEEL
COVERS

LINEAR
DRAINAGE

DUCTILE IRON
COVERS

BESPOKE STEEL
COVERS

UNDERGROUND
PIPES AND FITTINGS



Stainless Steel Slotted Class C250



Stainless Steel Perforated Class C250



Galvanised Steel Slotted Class C250



Ductile Iron Slotted Class C250



Ductile Iron Narrow Slotted Class C250



Ductile Iron Slotted Class D400



Ductile Iron Narrow Slotted Class D400

100MM INTERNAL WIDTH CHANNELS CLASS C250

Product Code Complete with Channel	Material	Description	Overall Width (mm)	Grating Length (mm)
CD C10-L00S-09	Stainless Steel	Slotted	123	1000
CD C10-L00S-52	Stainless Steel	Perforated	123	1000
CD C10-L00G-03	Galvanised Steel	Slotted	123	1000
CD C10-L00G-20	Ductile Iron	Slotted	125	500*
CD C10-L00G-26	Ductile Iron	Narrow Slotted	125	500*

100MM INTERNAL WIDTH CHANNELS CLASS D400

Product Code Complete with Channel	Material	Description	Overall Width (mm)	Grating Length (mm)
CD D10-L00G-21	Ductile Iron	Slotted	125	500*
CD D10-L00G-27	Ductile Iron	Narrow Slotted	125	500*

*Metre length channel supplied complete with two gratings

Class E600 – F900

Polymer Concrete Linear drainage

- Channel manufactured from hard-wearing polymer concrete with ductile iron reinforced edge rail and complete with various grating options
- Gratings are locked by our unique boltless 'CatchLock' system for ease of access
- Interconnecting end details aid alignment during installation and reduce in-situ movement under loading
- 100/150/200/300 mm widths available
- Pre-sloped systems (providing 0.6% fall) and level fall systems available



CD F10-L00C-63

APPLICATION

- Industrial areas
- Heavy wheel loads
- Forklift areas
- Service station
- HGV
- Factories
- Warehouses

**FOR OUR FULL RANGE
PLEASE REFER TO OUR LINEAR
DRAINAGE CATALOGUE.**

CLASS E600

Product Code	Description	Silt Box Product Code
CD E10-L00C-22	100mm wide constant depth channel complete with ductile iron slotted grating	CD E10-SBC-22
CD E10-L00-28	100mm wide constant depth channel complete with ductile iron narrow slotted grating	CD E10-SBC-28

CLASS F900

Product Code	Description	Silt Box Product Code
CD F10-L00-63	100mm wide constant depth channel complete with ductile iron slotted grating	CD F10-SBC-63
CD F10-L00-69	100mm wide constant depth channel complete with ductile iron narrow slotted grating	CD F10-SBC-69

CLARK-DRAIN



THE DRAINAGE COMPANY

CALL DIRECT 01733 765317

Class E600 – F900 Grating Options



POLYPROPYLENE
COVERS

STEEL COVERS

LINEAR DRAINAGE

DUCTILE IRON
COVERS

BESPOKE STEEL
COVERS

UNDERGROUND
PIPES AND FITTINGS



Ductile Iron Narrow Slotted Class E600



Ductile Iron Narrow Slotted Class E600



Ductile Iron Slotted Class F900



Ductile Iron Narrow Slotted Class F900

100MM INTERNAL WIDTH CHANNELS CLASS E600

Product Code Complete with Channel	Material	Description	Overall Width (mm)	Grating Length (mm)
CD E10-L00C-22	Ductile Iron	Slotted	125	500*
CD E10-L00C-28	Ductile Iron	Narrow Slotted	125	500*

100MM INTERNAL WIDTH CHANNELS CLASS F900

Product Code Complete with Channel	Material	Description	Overall Width (mm)	Grating Length (mm)
CD F10-L00C-63	Ductile Iron	Slotted	125	500*
CD F10-L00C-69	Ductile Iron	Narrow Slotted	125	500*

*Metre length channel supplied complete with two gratings

Load Class Descriptions

Cast Iron Covers

The appropriate class of manhole cover or gully grate required depends on the place of installation. The various places of installation have been divided into groups numbered 1 to 6.

The diagram below shows the location of some of these groups in a highway environment. A guide as to which class of manhole top or gully top should be used is shown in parenthesis for each group.

The selection of the appropriate class is the responsibility of the designer. Where there is any doubt the stronger class should be selected.



GROUP 1 (MIN CLASS A15)

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

GROUP 2 (MIN CLASS B125)

Recommended for use in footways, pedestrian areas and driveways.

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.

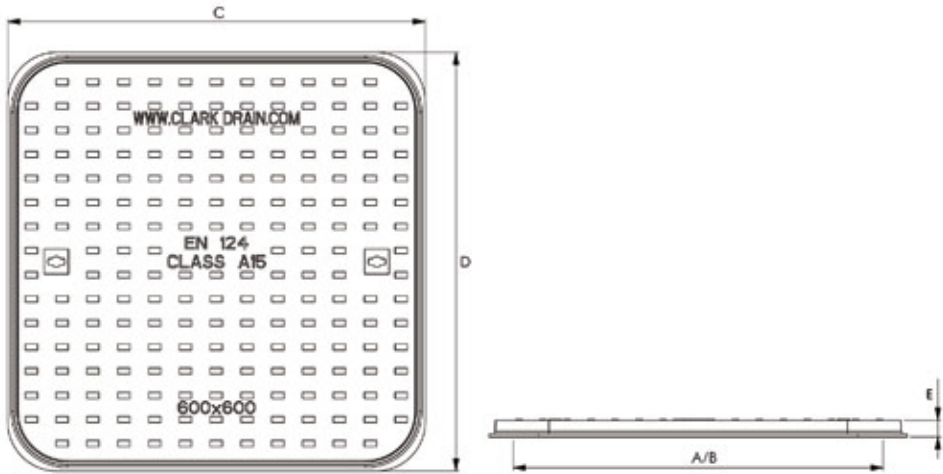
**FOR OUR FULL RANGE OF CAST IRON
COVERS AND SIZES, PLEASE REFER
TO OUR CASTINGS CATALOGUE.**

Light Duty 15kN Solid Top Covers and Frames

- Pedestrian duty solid top manhole covers and frames rated to 15kN
- Manufactured in grey iron
- Black bitumen coated
- Closed keyways



CD 12



Product Code	Kitemark	Loading Class	Clear Opening Size (mm) A/B	Overall Size (mm) C/D	Depth (mm) E	Weight (kg)
CD 62	n/a	15kN	600 x 450	678 x 528	27	22
CD 12	n/a	15kN	600 x 600	678 x 678	27	28

BS EN 124 Class B125

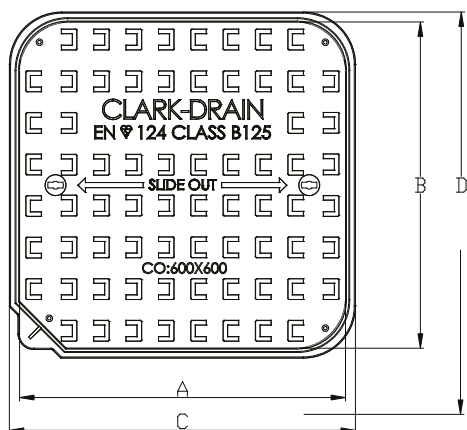
Solid Top Cover and Frame



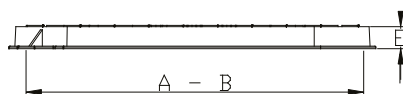
EN124
B125
[12.5T]

FEATURES INCLUDE:

- Durable ductile iron cover and frame
- Kitemark certified
- Closed keyways
- Black bitumen coated
- One piece solid top
- Available with optional skid-resistant coating on top surface
- Integral lifting keys available separately



CD 777 KMB



Product Code	Kitemark	Loading Class	Clear Opening Size (mm) A/B	Overall Size (mm) C/D	Depth (mm) E	Weight (kg)
CD 1657 KMB	✓	B125	450 dia	550 dia	40	16.5
■ CD 761 KMB	✓	B125	450 x 450	510 x 510	40	20
■ CD 761SR KMB+R	✓	B125	450 x 450	507 x 507	30	22
■ CD 762 KMB	✓	B125	600 x 450	662 x 512	40	26
■ CD 777 KMB	✓	B125	600 x 600	663 x 663	40	34
■ CD 722 KMB	✓	B125	750 x 600	820 x 668	40	50
CD 752 KMB	✓	B125	900 x 600	990 x 690	45	58

■ Slide out capability

EN 124 Class D400

Solid Top Covers and Frames



EN 124
D400

POLYPROPYLENE
COVERS

STEEL
COVERS

LINEAR
DRAINAGE

DUCTILE IRON
COVERS

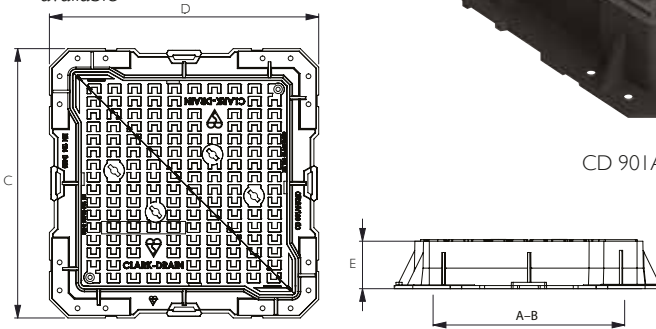
RESPOKE STEEL
COVERS

UNDERGROUND
PIPES AND FITTINGS

- Heavy duty double triangular manhole cover and frame to BS EN 124
- Manufactured in ductile iron
- Black bitumen coated
- HA104/09 compliant
- Non-rock design
- Closed keyways
- Kitemark certified
- Optional SW or FW badging available



CD 901AH KMD



HA104/09 (LOW RISK AREAS) COMPLIANT

Product Code	Kitemark	Loading Class	Clear Opening Size (mm) A/B	Overall Size (mm) C/D	Depth (mm) E	Weight (kg)
CD 701H KMD	✓	D400	600 × 600	746 × 746	100	62
CD 701AH KMD	✓	D400	600 × 600	768 × 768	150	74
CD 1659H KMD	✓	D400	675 × 675	813 × 813	100	74
CD 1659AH KMD	✓	D400	675 × 675	815 × 815	150	88
CD 693H KMD	✓	D400	1200 × 675	1345 × 820	100	145
CD 693AH KMD	✓	D400	1200 × 675	1374 × 850	150	160

HA104/09 (HIGH RISK AREAS) COMPLIANT

Product Code	Kitemark	Clear Opening (mm) A/B	Overall Size (mm) C/D	Depth (mm) E	Weight (Kg)
CD 807AH KMD [^]	✓	750 × 750	900 × 900	150	115
CD 901H KMD	✓	600 × 600*	847 × 847	100	104
CD 901AH KMD	✓	600 × 600*	851 × 851	150	115
CD 902H KMD	✓	675 × 675	915 × 915	100	125
CD 902AH KMD	✓	675 × 675	925 × 925	150	137

[^] Closed keyway only. Optional extras: badging, locking, safety grills, security plates * Will accommodate imperial 24"×24" pit size

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WWW.CLARK-DRAIN.COM

EN 124 Class E600

Double Tri Covers and Frames

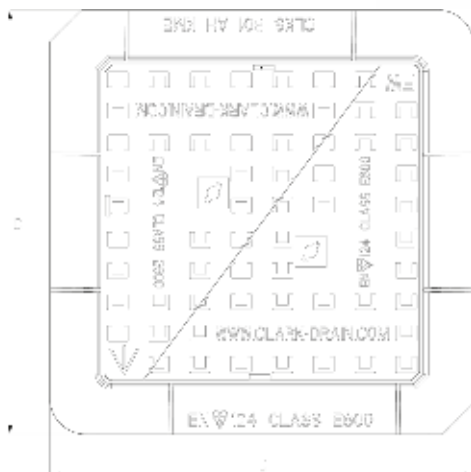


EN 124
E600

- Heavy duty double triangular manhole cover and frame to BS EN 124
- Manufactured in ductile iron
- Black bitumen coated
- Non-rock design
- Closed keyways
- Kitemark certified



CD 801AH KME



PRODUCTS BELOW ARE HA104/09 (LOW AND HIGH RISK AREAS) COMPLIANT

Product Code	Kitemark	Loading Class	Clear Opening Size (mm) A/B	Overall Size (mm) C/D	Depth (mm) E	Weight (kg)
CD 801AH KME	✓	E600	600 × 600	813 × 813	150	102
CD 802AH KME	✓	E600	675 × 675	875 × 875	150	110
CD 808AH KME	✓	E600	1200 × 675	1365 × 835	150	200

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THE DRAINAGE COMPANY

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EN 124 Class F900

Double Tri Covers and Frames

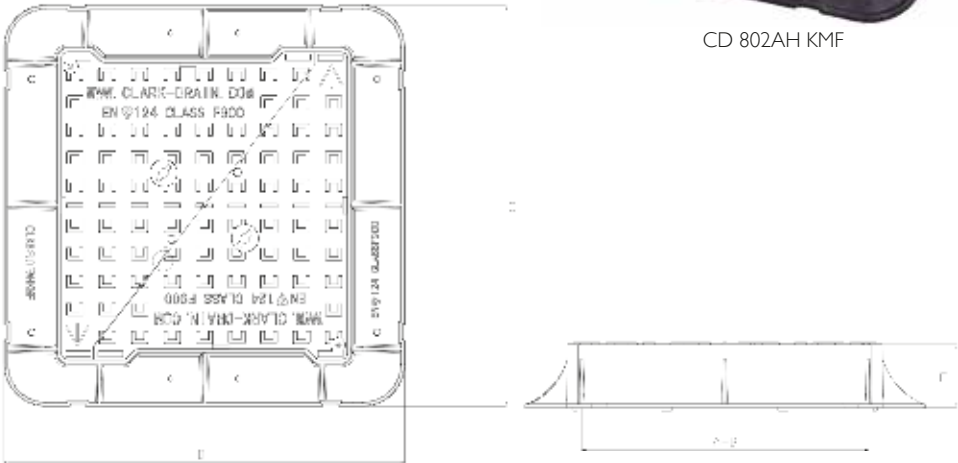


EN 124
F900

- Heavy duty double triangular manhole cover and frame to BS EN 124
- Manufactured in ductile iron
- Black bitumen coated
- Non-rock design
- Closed keyways
- Kitemark certified



CD 802AH KMF



PRODUCTS BELOW ARE HAI 04/09 (LOW AND HIGH RISK AREAS) COMPLIANT

Product Code	Kitemark	Loading Class	Clear Opening Size (mm) A/B	Overall Size (mm) C/D	Depth (mm) E	Weight (kg)
CD 801AH KMF	✓	F900	600 x 600	906 x 906	150	145
CD 802AH KMF	✓	F900	675 x 675	952 x 952	150	172
CD 807AH KMF	✓	F900	750 x 750	1013 x 1013	150	200

EN 124 Class B125 – D400 Gully Gratings

EN 124
B125

EN 124
C250

EN 124
D400



CD 644 KMD



CD 60DDI KMC



CD 172 KMB



CD 185 KMD

DOUBLE TRIANGULAR

Product Code	Kitemark	Loading Class	Clear Opening Size (mm)	Overall Size (mm)	Depth (mm)	Weight (kg)
▲ CD 644 KMD	✓	D400	415 x 415	570 x 505	100	32

CAPTIVE HINGED

Product Code	Kitemark	Loading Class	Clear Opening Size (mm)	Overall Size (mm)	Depth (mm)	Weight (kg)
CD 58 DDI	✓	125 kN	302 x 302	350 x 333	50	8
CD 172 KMB	✓	B125	280 diam	450 x 410	76	22
CD 60 DDIKMC	✓	C250	302 x 302	400 x 362	75	13
CD 128 KMC	✓	C250	336 x 308	393 x 480	75	17
CD 178 KMD	✓	D400	385 x 317	520 x 402	100	22
▲ CD 180 KMD	✓	D400	430 x 370	570 x 459	100	30
▲ CD 184S KMD	✓	D400	425 x 425	580 x 521	100	34
▲ CD 185 KMD**	✓	D400	452 x 452	592 x 538	100	37
CD 231 KMD*	✓	D400	430 x 370	580 x 462	100	32

*Mesh grating **Reversible Hinge
▲ HA109/09 compliant

Miscellaneous Items



CD 552



CD 552L



CD 553



CD 556



CD 776



CD 880



CD 850

Product Code	Description
CD 552	Pair of heavy duty cast iron lifting keys
CD 552L	Pair of long handle lifting keys
CD 553	Pair of light duty cast iron lifting keys
CD 553L	600mm length light to medium duty lifting keys
CD 556	Pair of light duty polypropylene lifting keys
CD 776	Pair of recessed polypropylene lifting keys
CD 212	Galvanised step iron 115mm Length – Boxes of 20
CD 213	Galvanised step iron 225mm Length – Boxes of 15
CD 880	140 x 115 x 75 Locking Polypropylene stop tap box
CD 850	140 x 115 x 75 Locking Cast stop tap box

Engineered Steel Access Covers and Frames

Our fabrication facility employs the very latest in CNC and robotic manufacturing methods to ensure the lowest production costs and accurate workmanship. Our products are assessed for behavioural characteristics when subject to their intended loading scenario. We employ the latest in FEA (Finite Element Analysis) and draughting software to ensure optimum design and accuracy.

Pumping Station



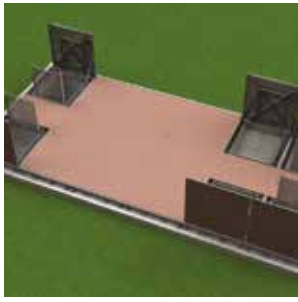
Biomass



Security



Utility



Precinct



Transport



Clark-Drain offers in-house galvanising and powder coating services



Facta Loadings

FACTA GUIDE TO PERFORMANCE CLASSES FOR FABRICATED ACCESS COVERS

Class	GPW	WHEEL LOADS		LOAD TEST DATA		INSTALLATION GUIDE
	Slow Moving	Pneumatic Tyres	Solid Tyres	Acceptance Test (static wheel load + overload & dynamic effects)	Strength Test (Acceptance Test load + ultimate safety factor)	Installation Areas
A	Pedestrian duty	–	–	5x1x1 = 5kN	5x1.6 = 8kN	Areas which can only be used by pedestrians and pedal cyclists
AA	5 tonne	1.5 tonne (15kN)	–	1.5x1.1x1.15 = 19kN	19x1.6 = 31kN	Areas where small trolleys and private cars traffic, e.g. domestic driveways, trolley parks.
AAA	7.5 and 10 tonne	2.5 tonne (25kN)	0.5 tonne (5kN)	25x1.1x1.15 = 32kN	32x1.6 = 52kN	Restricted access delivery or service areas.
B	16, 20, 25 tonne	5 tonne (50kN)	0.75 tonne (7.5kN)	50x1.1x1.15 = 63.25kN	63.25x1.6 = 101kN	Pedestrian precincts, light commercial delivery and parking areas.
C	Up to 38 tonne	6.5 tonne (65kN)	1 tonne (10kN)	65x1.1x1.15 or 50x1.1x1.15 = 82.25kN	82.25x1.6 = 132kN	Factories, industrial plants, commercial delivery or parking areas.
D	Up to 44 tonne	11 tonne (108kN)	3 tonne (30kN)	108x1.1x1.15 or 50x1.1x1.15 = 137.5kN	137.5x1.6 = 220kN	Delivery areas and service roads where HGVs can reach speeds of 20mph max
E	Special	16 tonne (158kN)	5 tonne (50kN)	158x1.1x1.15 = 200kN	200x1.6 = 320kN	Areas imposing high wheel loads. Docksides and container areas.
F	Special	24 tonne (237kN)	–	237x1.1x1.15 = 300kN	300x1.6 = 480kN	Areas imposing heavy wheel loads. Aircraft pavements where towing vehicles operate.

POLYPROPYLENE COVERS

STEEL COVERS

LINEAR DRAINAGE

DUCTILE IRON COVERS

BESPOKE STEEL COVERS

UNDERGROUND PIPES AND FITTINGS

Precinct Series

The development of the Precinct series follows a research and development programme undertaken in partnership with Transport for London (TfL) to design and manufacture a new lift and slide out recessed pavior cover to meet their need for better theft prevention, health and safety and installation performance in precinct areas.

Reduced infill movement

Fixed grouting mesh bonds with a variety of infill materials to reduce in situ movement and time and cost associated with work to fix or replace broken slabs.

Greater flexibility

70mm and 100mm tray depth options provide greater design flexibility and saves installation time by removing the need for excessive stonecutting.

Easy to access

Removable slide out channel support and covers are easy to handle with a lifting key as a one person operation reducing the risk of workplace injury.

Safer public

Traditional locking pin designs can bend and become damaged on busy precincts making it difficult to unlock. The high traffic tolerance cap avoids this problem and reduces incidences of heels getting caught in exposed holes.

Increased strength

The robust 6mm thick galvanised steel construction offers greater loading resistance exceeding the BS EN 124 B125 class.

Ease of installation

Solid flange improves interaction with the bedding material for a stable installation.

Better security

New, unique turn catch lock system is below surface area and offers quick, easy, secure access to the chamber. Operators no longer have to drill out worn, corroded screws each time they need access saving maintenance time and cost.

Unique lifting eye and removable cap

Keyholes can be badged, e.g. TfL, CATV, ELEC, CCTV, etc.

The Clark-drain precinct series is available in the following sizes:

Code	Clear Opening	Tray Depth	Overall Size	Overall Depth	Tray Qty	Code	Clear Opening	Tray Depth	Overall Size	Overall Depth	Tray Qty
CD PR01	450 x 450	70	630 x 630	82	1	CD PR010	900 x 600	100	780 x 1080	112	3
CD PR02	600 x 450	70	630 x 780	82	1	CD PR011	915 x 445	70	625 x 1095	82	3
CD PR02/2PT	600 x 450	70	630 x 780	82	2	CD PR012	960 x 610	70	790 x 1140	82	3
CD PR03	600 x 450	100	630 x 780	112	1	CD PR013	1200 x 600	70	780 x 1380	82	4
C DPR04	600 x 600	70	780 x 780	82	2	CD PR014	1200 x 600	100	780 x 1380	112	4
CD PR05	600 x 600	100	780 x 780	112	2	CD PR016	1310 x 610	70	790 x 1490	82	4
CD PR06	610 x 610	70	790 x 790	82	2	CD PR017	1690 x 710	70	890 x 1870	82	5
CD PR07	752 x 255	70	435 x 905	82	1	CD PR018	2285 x 710	70	890 x 2465	82	6
CD PR08	750 x 600	70	780 x 930	82	2						
CD PR09	900 x 600	70	780 x 1080	82	3						

Underground Fixtures and Fittings

THE CD UI 150 – UNIVERSAL BOTTLE GULLY

Bottle Gullies are designed to hold water to prevent unwanted odours from escaping the drainage system and are used in conjunction with domestic waste water or surface water systems.

The CD UI 150 polypropylene Bottle Gully comes complete with a rectangular top section for ease of installation which is also removable to allow 160mm diameter pipe to be inserted to raise the top of the gully to suit whatever depth is required.

The CD UI 150 also comes with a sealed inlet (with bung) and outlet to allow it to be used as a standard Bottle Gully or a back inlet gully. The top section fits into the sealed base unit by way of the push fit connection, allowing full rotation to suit surrounding area or paving direction.

For ease of installation, the grating has cutting guidelines to follow when making downpipe entries.

FEATURES

- Rectangular top for ease of installation
- Dual purpose inlet and outlet to allow products to be used as back inlet as well as standard
- Ability to turn top to suit surface conditions and paving
- Adjustable height option
- Cutting guidelines in grating for downpipes
- Sealed, push fit connections

For our full range of underground fittings please contact our sales office on 01733 765 317.



CD UI 150



CLARK-DRAIN



THE DRAINAGE COMPANY



CALL **+44 1733 765317**
FAX **+44 1733 246923**
EMAIL **sales@clark-drain.com**

LOCAL STOCKIST

www.clark-drain.com

STATION ROAD | YAXLEY | PETERBOROUGH | PE7 3EQ | UNITED KINGDOM

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.

CAT0025