

# 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.

## 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 gulley 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.

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## Round Solid Top Cover 450mm PPIC Chamber

### CLKS 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.

### CLKS 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 CLKS 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).



CALL DIRECT 01733 765317

## Square Solid Top Cover Suitable for Shallow Inspection Chamber

Since the 1990s the majority of newly built houses have had 300mm diameter plastic inspection chambers installed. The CLKS 300 enables the frame to be easily connected to the top of all shallow inspection chambers.

### FEATURES

- Improved drain access (fits directly on the chamber)
- Corrosion resistant
- Driveway loading (35kN)
- Polypropylene cover and frame
- Can be rotated
- Quick and easy to install
- Circular opening in frame fits all major manufacturer's PPIC shallow inspection chambers

### CD U355

- 320mm diameter chamber riser c/w seal effective height 400mm



### CD U353

- 320 diameter 5 inlet chamber base



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

\*Overall frame size does not include reducer steps

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## 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 CLKS 499 restricted access reducer (optional)
- LABC approved



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



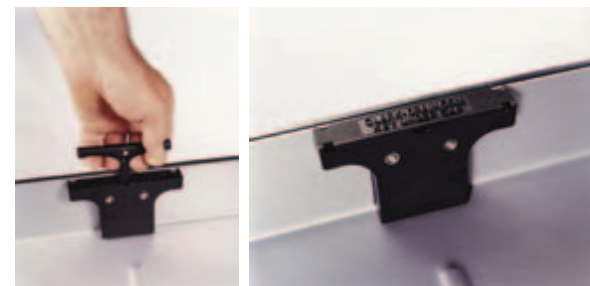
Fits all major shallow inspection chambers



Reducer Steps



Integral handle tested to withstand 120kgs of direct lift



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

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# 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

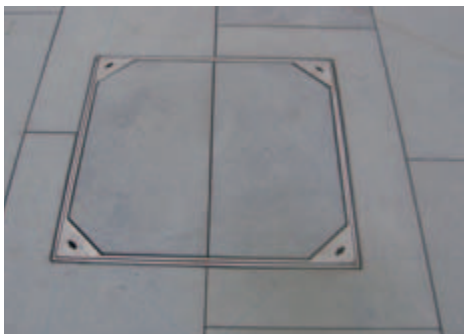
**GROSS PLATED WEIGHT:  
38 TONNE**

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 trolleys, plus aircraft or any other abnormal traffic.



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THE DRAINAGE COMPANY

# Square to Round Recessed Cover and Frame

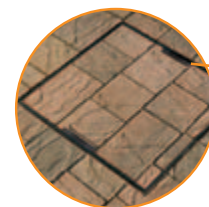


The polypropylene frame of our CLKS 450SR can be easily connected to the top of all major manufacturer's 450 PPIC inspection chambers.

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**

**Marshall's**  
Creating Better Landscapes

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

\*Not including location rings

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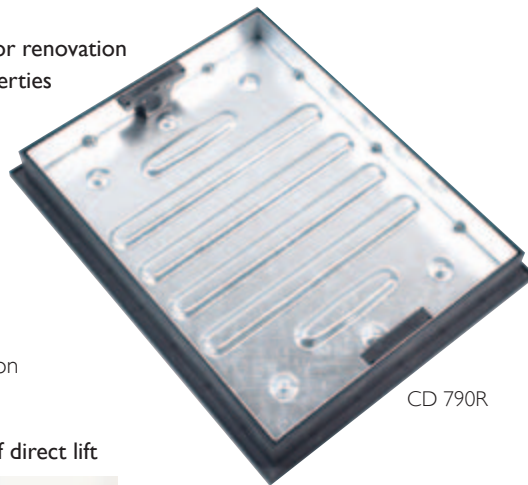
# Recessed Cover and Frame For Driveways



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
- CLKS 797R/100 provides two part lid option



CD 790R

Integral handle tested to withstand 120kgs of direct lift



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Creating Better Landscapes

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
*CLKS 790R/80/SF ▲	600 x 450	80	695 x 545 x 96	10T GPW
*CLKS 790R/100	600 x 450	100	700 x 650 x 105	10T GPW
*CLKS 791R	600 x 600	80	690 x 690 x 96	10T GPW
*CLKS 791R/SF ▲	600 x 600	80	690 x 690 x 96	10T GPW
*CLKS 791R/100 ▲	600 x 600	100	700 x 700 x 105	10T GPW
*CLKS 793R/100 ▲	750 x 600	100	850 x 700 x 105	10T GPW
CLKS 794R/100 ▲	750 x 750	100	850 x 850 x 105	10T GPW
CLKS 795R/100 ▲	900 x 600	100	1000 x 700 x 105	10T GPW
CLKS 796R/100 ▲	900 x 900	100	1000 x 1000 x 105	10T GPW
CLKS 797R/100 ▲	1200 x 600	100	1300 x 700 x 105	10T GPW

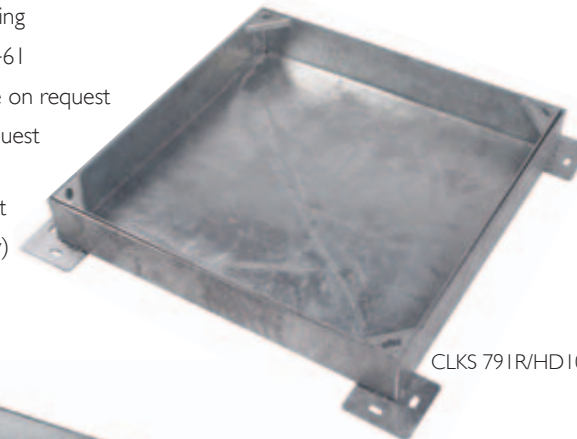
All products not marked with an \* will require a pair of CLKS 553 lifting keys (sold separately).  
Overall frame size does not include strengthening support. ▲ Steel Frame

# 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
- Lifting key required (sold separately)



CLKS 791R/HD100



CLKS 797R/HD100

Product Code	Clear Opening (mm)	Internal Tray Depth (mm)	Overall Frame Size (mm)	Loading
CLKS 791R/HD100	600 x 600	100	800 x 800 x 110	38T GPW
CLKS 793R/HD100	750 x 600	100	950 x 800 x 110	38T GPW
CLKS 794R/HD100	750 x 750	100	950 x 950 x 110	38T GPW
CLKS 796R/HD100	900 x 900	100	1100 x 1100 x 110	38T GPW
CLKS 797R/HD100	1200 x 600	100	1400 x 800 x 110	38T GPW

All products not marked with an \* will require a pair of CLKS 553 lifting keys (sold separately). Overall frame size does not include strengthening support



## 'T' Range Recessed Cover and Frame

The 'T' range suits a wide range of shallow tray applications for both internal and external uses 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.

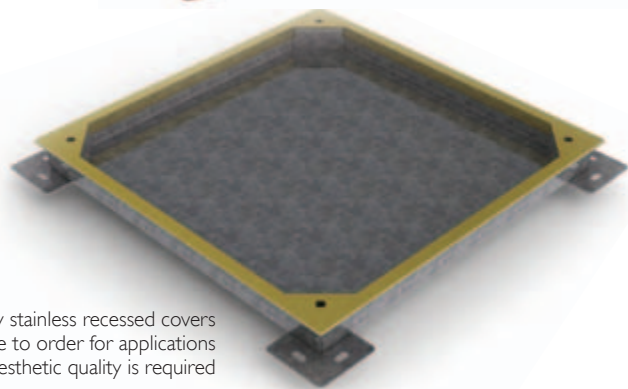


### FEATURES

- 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 CLKS 790R/46)
- CLKS 776 key required (sold separately)



T11G3



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
*CLKS 450SR/46SL	450 dia	43.5	580 x 580 x 54	5T GPW
*CLKS 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 58	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 58	5T GPW
T26G3 ▲	750 x 600	43.5	850 x 700 x 50	5T GPW
T31G3 ▲	750 x 750	43.5	850 x 850 x 50	5T GPW
T36G3 ▲	900 x 600	43.5	1000 x 700 x 50	5T GPW

\*Integral lifting keys. ▲ Supplied with steel frames. CLKS 776 key required (sold separately). Overall frame size does not include strengthening support.

## Aqua Knight Recessed Cover and Frame

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
- Approved and used by London Borough Councils
- Lifting keys included



AQK 6045

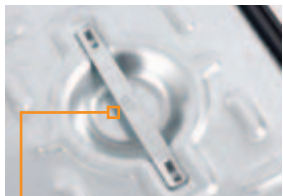
Product Code	Clear Opening (mm)	Internal Tray Depth (mm)	Overall Frame Size (mm)	Loading
AQK 4545	450 x 450	43.5	550 x 550 x 50	5T GPW
AQK 6045	600 x 450	43.5	700 x 550 x 50	5T GPW
AQK 6060	600 x 600	43.5	700 x 700 x 50	5T GPW
AQK 7560	750 x 600	43.5	850 x 700 x 50	5T GPW
AQK 7575	750 x 750	43.5	850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



PC6BG

	Product Code	Clear Opening (mm)	Overall Frame Size (mm)	Frame Depth (mm)
<b>Pedestrian</b>  2.5T GPW	PC2AG	300 x 300	363 x 363	30
	PC5AG	450 x 450	513 x 513	30
	PC6AG	600 x 450	663 x 513	30
	PC7AG	600 x 600	663 x 663	30
<b>5 Tonne GPW</b>  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
	PC7BG	600 x 600	663 x 663	30
<b>10 Tonne GPW</b>  10T GPW	PC2CG	300 x 300	363 x 363	30
	PC5CG	450 x 450	513 x 513	30
	PC6CG	600 x 450	663 x 513	30
	PC7CG	600 x 600	663 x 663	30
<b>17 Tonne GPW</b>  17T GPW	PC5DG	450 x 450	513 x 513	30
	PC6DG	600 x 450	663 x 513	30
	PC7DG	600 x 600	663 x 663	30
<b>25 Tonne GPW</b>  25T GPW	PC6EG	600 x 450	663 x 513	30

Overall frame size does not include strengthening support

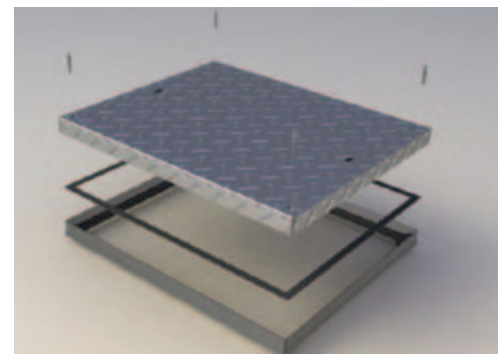
## Solid Top Access Covers

### Pressed cover (PC Range)




### Sealed and Locking



C9BG3  
(Sealed and locking as standard)



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)
<b>Pedestrian</b>  2.5T GPW	PC5AG3	450 x 450	513 x 513	30
	PC6AG3	600 x 450	663 x 513	30
	PC7AG3	600 x 600	663 x 663	30
<b>5 Tonne GPW</b>  5T GPW	PC2BG3	300 x 300	363 x 363	30
	PC5BG3	450 x 450	513 x 513	30
	PC6BG3	600 x 450	663 x 513	30
	SPC6BG3	600 x 450	663 x 513	45
	PC7BG3	600 x 600	663 x 663	30
	▲ C9BG3	750 x 600	810 x 660	50
	▲ C11BG3	900 x 600	960 x 650	50
<b>10 Tonne GPW</b>  10T GPW	PC6CG3	600 x 450	663 x 513	30
	PC7CG3	600 x 600	663 x 663	30
	SPC7CG3	600 x 600	663 x 663	45

▲ Supplied with galvanised chequer plate lids with close key holes (keys sold separately). Frame size does not include strengthening support. The products listed above are supplied sealed and locking as standard.

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## Solid Top Access Covers Pressed Cover (Deep Frame)

Clark-Drain offers a pressed steel option with a deep polypropylene frame for installations requiring a 45mm frame depth specification.

### FEATURES






- Solid top, pressed galvanised steel
- Black polypropylene frame (deeper than PC range)
- Fitted with integral staple lifting handles



SPC6CG

### 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 trolleys, aircraft or any other abnormal traffic.

		Product Code	Clear Opening (mm)	Overall Size (mm)	Frame Depth (mm)
Pedestrian		SPC6AG	600 x 450	663 x 513	45
5 Tonne GPW		SPC2BG	300 x 300	363 x 363	45
		SPC5BG	450 x 450	513 x 513	45
		SPC6BG	600 x 450	663 x 513	45
		SPC7BG	600 x 600	663 x 663	45
10 Tonne GPW		SPC5CG	450 x 450	513 x 513	45
		SPC6CG	600 x 450	663 x 513	45
		SPC7CG	600 x 600	663 x 663	45
17 Tonne GPW		SPC2DG	300 x 300	363 x 363	45
		SPC6DG	600 x 450	663 x 513	45
		SPC7DG	600 x 600	663 x 663	45
25 Tonne GPW		SPC6EG	600 x 450	663 x 513	45
		SPC7EG	600 x 600	663 x 663	45

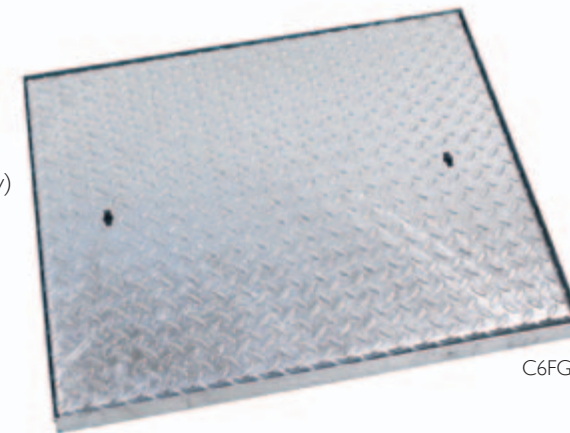
Frame depth size does not include strengthening support

## 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)



C6FG

		Product Code	Clear Opening (mm)	Overall Size (mm)	Frame Depth (mm)
5 Tonne GPW		C7BG	600 x 600	660 x 660	50
		C9BG	750 x 600	810 x 660	50
		C10BG	750 x 750	810 x 810	50
		C11BG	900 x 600	960 x 660	50
		C12BG	900 x 750	960 x 810	50
		C13BG	900 x 900	960 x 960	50
17 Tonne GPW		C9DG	750 x 600	810 x 660	50
		C10DG	750 x 750	810 x 810	50
		C11DG	900 x 600	960 x 660	50
38 Tonne GPW		C5FG	450 x 450	510 x 510	50
		C6FG	600 x 450	660 x 510	50
		C7FG	600 x 600	660 x 660	50
Extra Heavy Duty 44 Tonne GPW		C6G	600 x 450	660 x 510	50

Frame depth 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
<b>Load Class:</b>	A15	B125	C250	D400	E600	F900
<b>Application:</b>	Pedestrian  CLASS A15	Domestic Driveway  CLASS B125	Car Parks  CLASS C250	Main Highway  CLASS D400	Industrial Areas  CLASS E600	Docks & Airports  CLASS F900

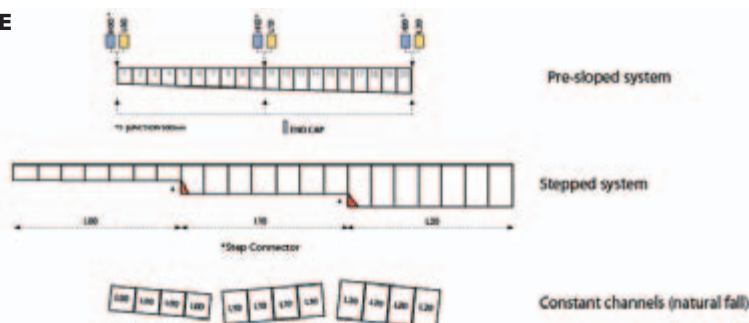
### DESIGNED TO CONFORM

All Clark-Drain linear channel products meet the new Construction Product Regulations that came into affect 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 CLKS 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
- 135mm external height ensuring sufficient water intake in almost all conditions
- 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



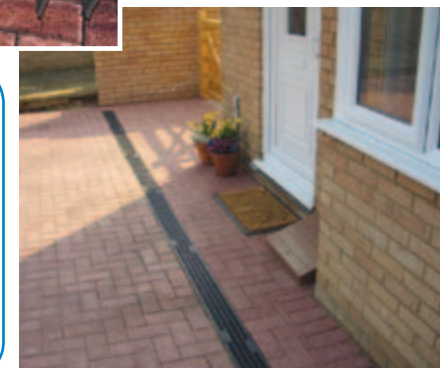
Debris trap



### CLKS 401 GARAGE PACK

Consists of:

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



# 400 Series Polypropylene Shallow Channel Class A15

## FEATURES INCLUDE:

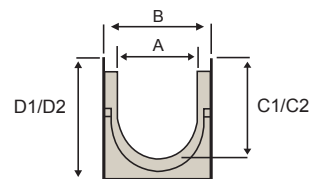
- Lightweight, non-rusting design
- Heat resistant (ideal for tarmac edging)
- Supplied with mesh grating
- Ideal for limited depth of excavation
- Removable grating for easy maintenance and cleaning
- Debris trap available separately
- Grating waterway Area: 600cm<sup>2</sup> (per metre)
- Available in packs of 128

## APPLICATIONS:

- Garage thresholds
- Patios
- Gardens
- Play areas

## LOCKING CHANNELS:

- Pin connections lock channels together so that several lengths can be laid in one go more easily for fast levelling.



Product Code	Length (mm)	Internal Width (mm) A	External Width (mm) B	Internal Height (mm) C1/C2	External Height (mm) D1/D2	Area (cm <sup>2</sup> )	Max through flow l/s
CLKS 410	1000	97	146	75/75	92/92	43	1.9

# 400 Series Polypropylene Class A15



## FEATURES INCLUDE:

- Male and female sliding connections aid installation as several lengths can be laid in one go
- CLKS 422 incorporates a mesh snap lock grating for easy maintenance and cleaning
- CLKS 425 incorporates a galvanised steel slotted grating
- Grating waterway area:  
CLKS 422 = 600cm<sup>2</sup> (per metre)  
CLKS 425 = 291 cm<sup>2</sup> (per metre)
- Available in packs of 64 or 96

## APPLICATIONS:

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

## ADDITIONAL SECURITY (OPTIONAL):

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

## LOCKING CHANNELS:

- Easy to connect with secure male/female SpringLock connection mechanism

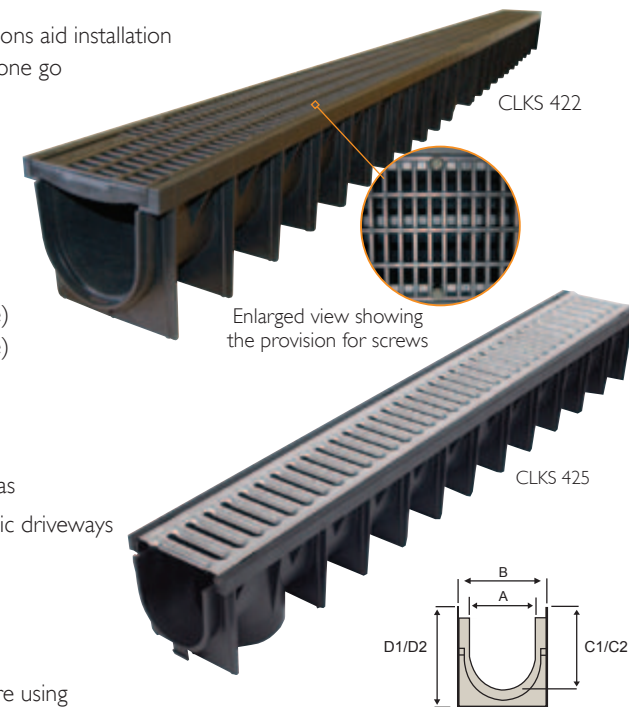


## DUAL PURPOSE END CAPS:

- Male and female plain end cap/end cap outlet



Product Code	Length (mm)	Internal Width (mm) A	External Width (mm) B	Internal Depth (mm) C1/C2	External Depth (mm) D1/D2	Area (cm <sup>2</sup> )	Max through flow l/s	End Cap	Debris Trap
CLKS 422	1000	100	142	85/85	135/135	53	2.5	CLKS 402	CLKS 403
CLKS 425	1000	100	142	85/85	135/135	57	2.8	CLKS 402	CLKS 403





## 400 Series

### Polypropylene Class C250

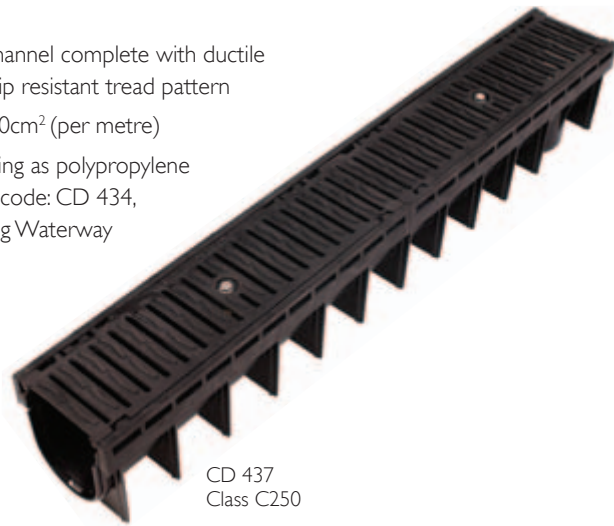


#### FEATURES INCLUDE:

- CD 437 is a polypropylene channel complete with ductile iron grating incorporating a slip resistant tread pattern
- Grating Waterway Area = 180cm<sup>2</sup> (per metre)
- Also available with B125 loading as polypropylene channel and grating (Product code: CD 434, Silt box code: CD 435, Grating Waterway Area = 198cm<sup>2</sup> (per metre))

#### APPLICATIONS:

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

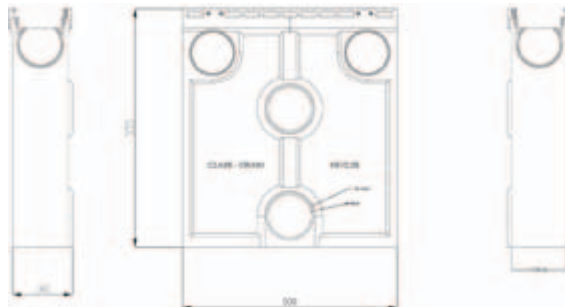


CD 437  
Class C250

#### 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	Area (cm <sup>2</sup> )	Max through flow l/s	End Cap	Debris Trap
CD 437	1000	100	142	110/110	160/160	84	4.9	CLKS 402	403

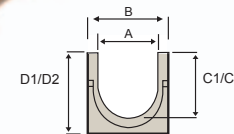
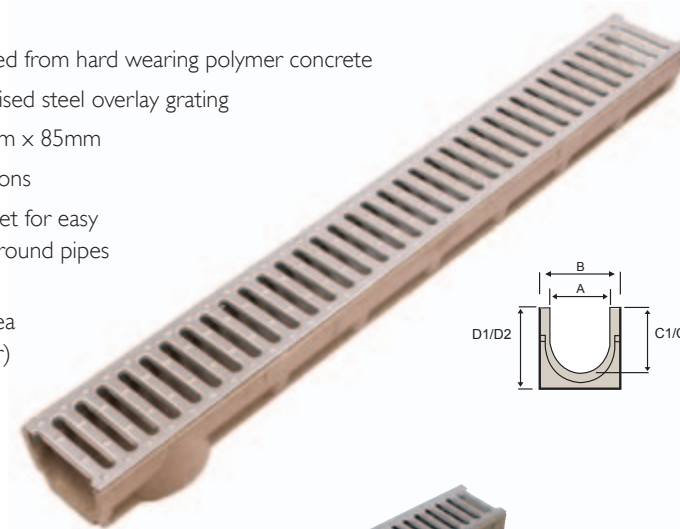
## Class A15

### Polymer Concrete Channel Galvanised Steel Slotted Grating



#### 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 = 298 cm<sup>2</sup> (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	Area (cm <sup>2</sup> )	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



## 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

# Class C250 – D400 Grating Options



Stainless Steel Slotted Class C250



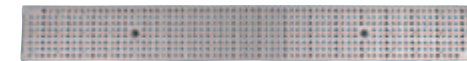
Galvanised Steel Slotted Class C250



Ductile Iron Narrow Slotted Class C250



Ductile Iron Narrow Slotted Class D400



Stainless Steel Perforated Class C250



Ductile Iron Slotted Class C250



Ductile Iron 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

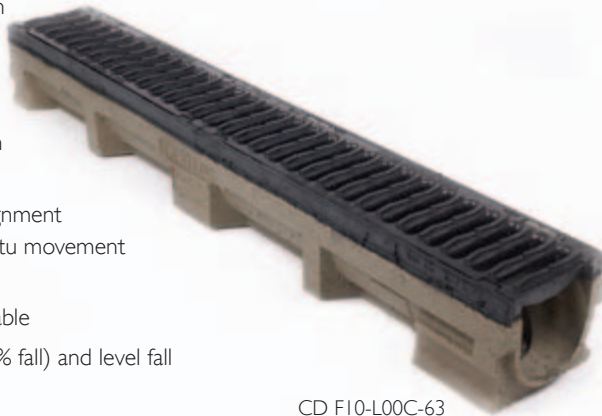
Product Code Complete with Channel	Material	Description	Overall Width (mm)	Grating Length (mm)
CD C10-L00G-21	Ductile Iron	Slotted	125	500*
CD C10-L00G-27	Ductile Iron	Narrow Slotted	125	500*

\*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

## Class E600 – F900

### Grating Options



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)

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)

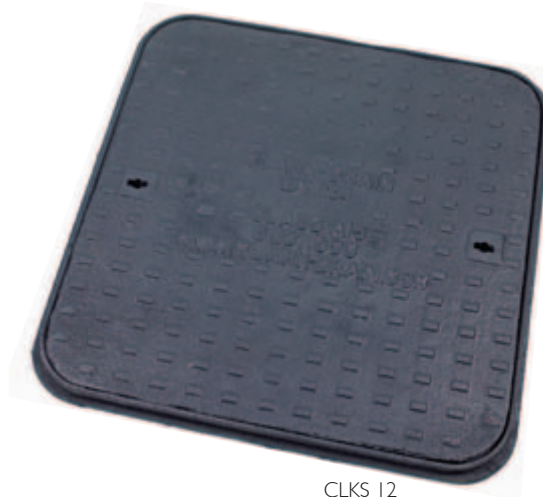
Areas imposing particularly high wheel loads eg. aircraft pavements.

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

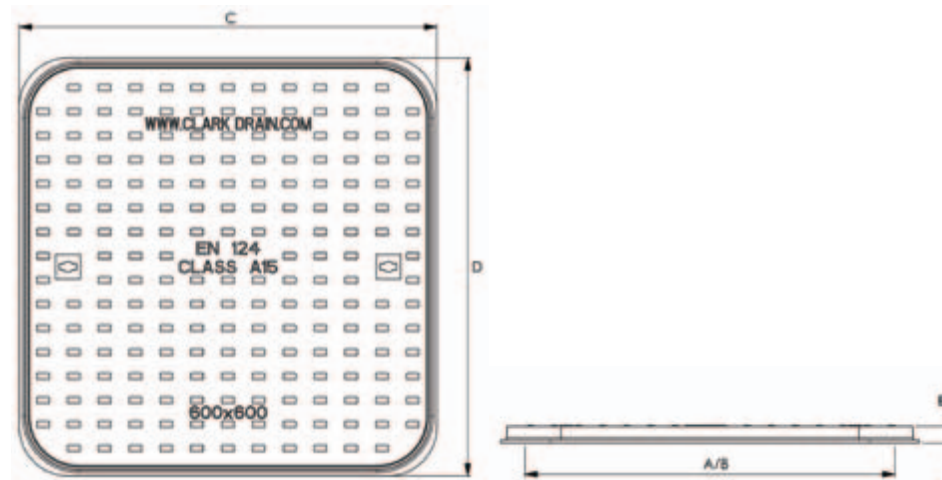
## Light Duty 15kN

### 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



CLKS 12



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

[SALES@CLARK-DRAIN.COM](mailto:SALES@CLARK-DRAIN.COM)

[WWW.CLARK-DRAIN.COM](http://WWW.CLARK-DRAIN.COM)

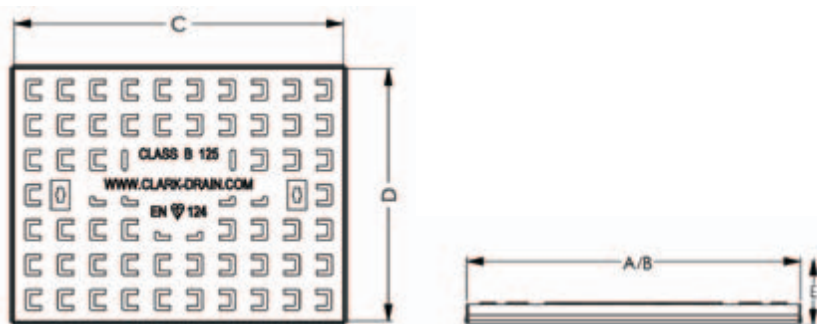
## EN 124 Class B125 Solid Top Covers and Frames



- Medium duty solid top manhole cover and frame to BS EN 124
- Manufactured in ductile iron
- Black bitumen coated
- Closed keyways
- Kitemark certified



CD 762 KMB



Product Code	Kitemark	Loading Class	Clear Opening Size (mm) A/B	Overall Size (mm) C/D	Depth (mm) E	Weight (kg)
CLKS 1657 KMB	✓	B125	450 dia	550 dia	40	16.5
CD 762 KMB <sup>†</sup>	✓	B125	600 x 450	660 x 510	40	28
CD 777 KMB <sup>†</sup>	✓	B125	600 x 600	660 x 660	40	36
CLKS 722 KMB	✓	B125	750 x 600	850 x 700	40	50
CLKS 752 KMB	✓	B125	900 x 600	990 x 690	45	58

<sup>†</sup>Supplied with galvanised steel frame

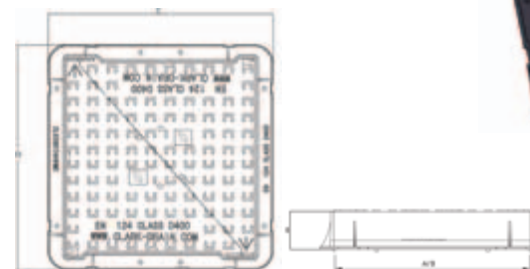
## EN 124 Class D400 Solid Top Covers and Frames



- 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
- Optional SW or FW badging available
- Kitemark certified



CLKS 807AH 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)
CLKS 701H KMD	✓	D400	600 x 600	746 x 746	100	62
CLKS 701AH KMD	✓	D400	600 x 600	768 x 768	150	74
CLKS 1659H KMD	✓	D400	675 x 675	802 x 802	100	76
CLKS 1659AH KMD	✓	D400	675 x 675	815 x 815	150	88
CLKS 693H KMD	✓	D400	1200 x 675	1345 x 820	100	145
CLKS 693AH KMD	✓	D400	1200 x 675	1374 x 850	150	160

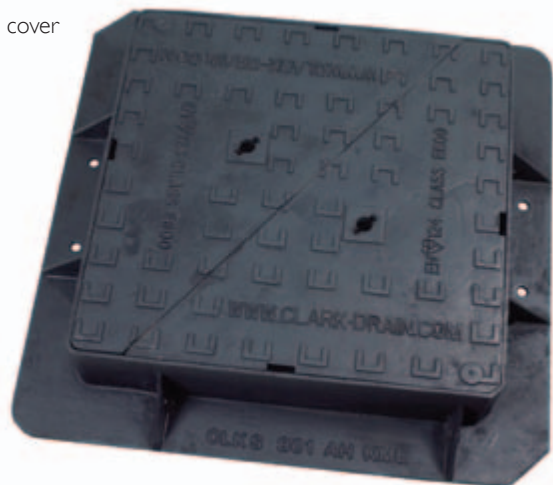
### HA104/09 (HIGH RISK AREAS) COMPLIANT

Product Code	Kitemark	Loading Class	Clear Opening Size (mm) A/B	Overall Size (mm) C/D	Depth (mm) E	Weight (kg)
CLKS 801H KMD	✓	D400	600 x 600	738 x 738	100	73
CLKS 801AH KMD	✓	D400	600 x 600	765 x 765	150	86
CLKS 802H KMD	✓	D400	675 x 675	802 x 802	100	90
CLKS 802AH KMD	✓	D400	675 x 675	828 x 828	150	102
CLKS 807AH KMD	✓	D400	750 x 750	900 x 900	150	115

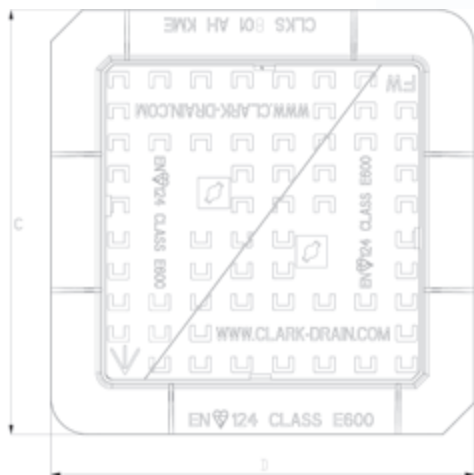
## EN 124 Class E600 Double Tri Covers and Frames



- 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



CLKs 801AH KME



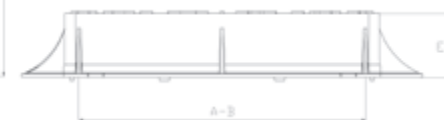
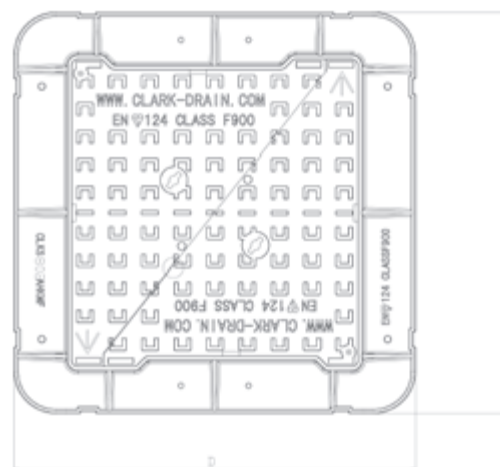
## EN 124 Class F900 Double Tri Covers and Frames



- 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



CLKs 802AH KMF



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)
CLKs 801AH KME	✓	E600	600 x 600	813 x 813	150	102
CLKs 802AH KME	✓	E600	675 x 675	875 x 875	150	110
CLKs 808AH KME	✓	E600	1200 x 675	1365 x 835	150	200

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)
CLKs 801AH KMF	✓	F900	600 x 600	906 x 906	150	145
CLKs 802AH KMF	✓	F900	675 x 675	952 x 952	150	172
CLKs 807AH KMF	✓	F900	750 x 750	1013 x 1013	150	200



## EN 124 Class B125 – D400 Gulley Gratings

EN 124 B125	EN 124 C250	EN 124 D400
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CLKS 644KMD



CLKS 60DDI



CLKS 172 KMB



CLKS 185 KMD

### DOUBLE TRIANGULAR

Product Code	Kitemark	Loading Class	Clear Opening Size (mm)	Overall Size (mm)	Depth (mm)	Weight (kg)
CLKS 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)
CLKS 60 DDI	✓	B125	300 x 300	400 x 362	75	15
CLKS 172 KMB	✓	B125	280 diam	450 x 410	76	22
CLKS 128 KMC	✓	C250	336 x 308	393 x 480	75	17
CLKS 180 KMD	✓	D400	430 x 370	570 x 459	100	30
CLKS 185 KMD**	✓	D400	452 x 452	592 x 538	100	37
CLKS 231 KMD*	✓	D400	430 x 370	580 x 462	100	32

\*Mesh grating \*\*Reversible Hinge

## Miscellaneous Items



CLKS 552



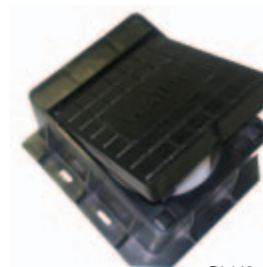
CLKS 553



CLKS 556



CLKS 776



CLKS 880



CLKS 850

Product Code	Description
CLKS 552	Pair of heavy duty cast iron lifting keys
CLKS 553	Pair of light duty cast iron lifting keys
CLKS 556	Pair of light duty polypropylene lifting keys
CLKS 776	Pair of recessed polypropylene lifting keys
CLKS 212	Galvanised step iron 115mm Length – Boxes of 20
CLKS 213	Galvanised step iron 225mm Length – Boxes of 15
CLKS 880	140 x 115 x 75 Locking Polypropylene stop tap box
CLKS 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



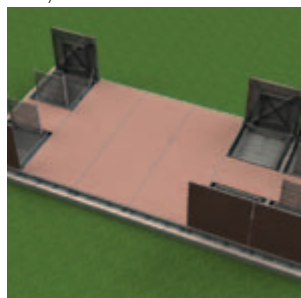
Biomass



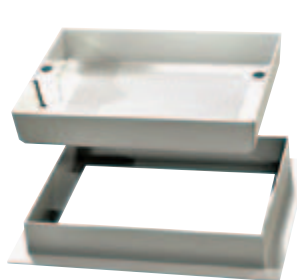
Security



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	COMPARISONS		GPW		WHEEL LOADS		LOAD TEST DATA		INSTALLATION GUIDE	
	EN 124 Class	BS 497 Approx Equiv. Class	GPW Slow Moving	GPW Fast Moving	Slow Moving	Fast Moving	Acceptance Test (static wheel load + overload & dynamic effects)	Strength Test (Acceptance Test load + ultimate safety factor)	Installation Areas	Examples
A	A15	A	Pedestrian duty	–	0.5 tonne (5kN)	–	5x1x1 = 5kN	5x1.6 = 8kN	Areas which can only be used by pedestrians and pedal cyclists	Pedestrian areas Pedal cycle tracks Bridge footways
AA	–	–	5 tonne	–	1.5 tonne (15kN)	–	1.5x1.1x1.15 = 19kN	19x1.6 = 31kN	Areas permanently inaccessible to vehicles other than private cars	Car parking area, Car parking tracks Bridge footways
AAA	–	–	7.5 and 10 tonne	–	2.5 tonne (25kN)	–	25x1.1x1.15 = 32kN	32x1.6 = 52kN	Non carriageway locations and areas from which vehicles over the stated wheel loading or GLV weight are excluded	Restricted access roads Service/ Pedestrian areas
B	B125	B	16, 20, 25 and 38 tonne	–	5 tonne (50kN)	–	50x1.1x1.15 = 63.25kN	63.25x1.6 = 101kN	Footway locations and access areas where slow moving emergency public services and delivery vans have access and may park	Pedestrian precincts, Commercial delivery access Refuse collection access Forecourt areas Paved parking areas
C	C250	C	Special	Up to 38 tonne	6.5 tonne (65kN)	5 tonne (50kN)	65x1.1x1.15 or 50x1.1x1.15 = 82.25kN	82.25x1.6 = 132kN	Carriageways carrying all classes of (fast-moving) traffic but located within 0.5m of the kerb line and up to 0.2m into the footway	All carriageways, but restricted to the stated zones and wheel loading
D	D400	D	Special	Up to 38 tonne	11 tonne (108kN)	5 tonne (50kN)	108x1.1x1.15 or 50x1.1x1.15 = 137.5kN	137.5x1.6 = 220kN	Carriageways, hard shoulders and parking areas for all types of fast moving road vehicles	All carriageway locations – restricted only by wheel loading
E	E600	–	Special	Special	16 tonne (158kN)	–	158x1.1x1.15 = 200kN	200x1.6 = 320kN	Non-carriageway areas imposing high wheel loads	Docksides, Airports
F	F900	–	Special	Special	24 tonne (237kN)	–	237x1.1x1.15 = 300kN	300x1.6 = 480kN	Areas imposing particularly high wheel loads	Aircraft aprons



## 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 Depth	Tray Qty
CD PR01	450 x 450	70	82	1
CD PR02	600 x 450	70	82	1
CD PR02/2PT	600 x 450	70	82	2
CD PR03	600 x 450	100	112	1
CD PR04	600 x 600	70	82	2
CD PR05	600 x 600	100	112	2
CD PR05L	600 x 600	100	112	2
CD PR06	610 x 610	70	82	2
CD PR07	752 x 255	70	82	1
CD PR08	750 x 600	70	82	2
CD PR09	900 x 600	70	82	3

Code	Clear Opening	Tray Depth	Overall Depth	Tray Qty
CD PR10	900 x 600	100	112	3
CD PR10L	900 x 600	100	112	3
CD PR11	915 x 445	70	82	3
CD PR12	960 x 610	70	82	3
CD PR13	1200 x 600	70	82	4
CD PR14	1200 x 600	100	112	4
CD PR14L	1200 x 600	100	112	4
CD PR16	1310 x 610	70	82	4
CD PR17	1690 x 710	70	82	5
CD PR18	2285 x 710	70	82	6

## 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



CD UI 150

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





# CLARK-DRAIN



THE DRAINAGE COMPANY

**CALL**    **+44 1733 765317**

**FAX**    **+44 1733 246923**

**EMAIL**    **[sales@clark-drain.com](mailto:sales@clark-drain.com)**

**LOCAL STOCKIST**

**[www.clark-drain.com](http://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.

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