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DUCTILE IRON RANGE

MANHOLE COVERS ▼ GULLY GRATES ▼ ACCESSORIES

CATALOGUE ▼ 2022
ISSUE 2



HELLO.

Whether you are looking to create strong infrastructure or a new landscape, Wrekin has the civil engineering expertise and unique products to bring your vision to life.

We are a leading UK designer, manufacturer, and supplier of specialist products for the civil engineering industry, including ductile iron manhole covers and gully grates, steel access covers, bespoke steel systems and geosynthetics.

I am proud to say we are a family business, with 40 years' experience in the sector. We have grown in every one of those 40 years, and plan to continue to employ the best people, design and make reliably outstanding products and offer the kind of customer service we like to receive ourselves.

We believe sustainable manufacturing is good manufacturing. At the heart of our culture is sustainability, built on our three core business pillars – resources, prosperity and our people.

Our friendly teams will help you discover which intelligent civil engineering product is right for your project. Contact us today to talk it through.

Simon Turner

Commercial Director - Wrekin Products



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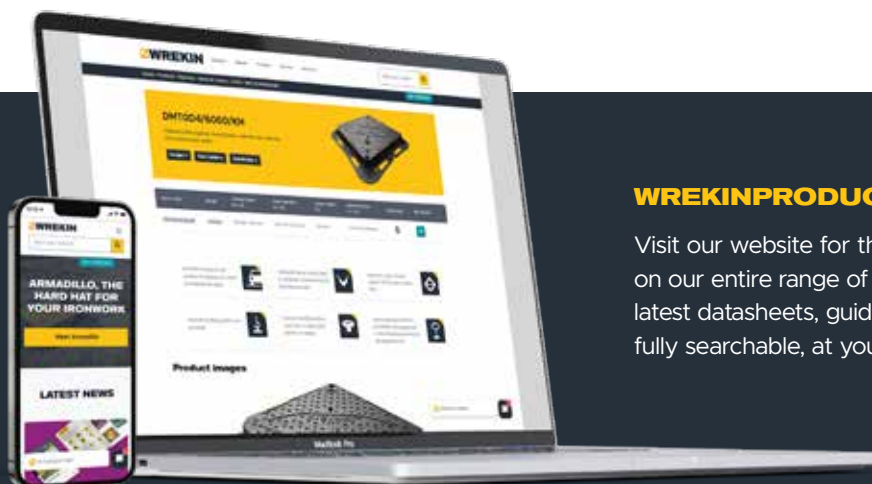
NEW

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WREKINPRODUCTS.COM

Visit our website for the very latest information on our entire range of products. Access the latest datasheets, guides, videos and more, all fully searchable, at your fingertips.



DUCTILE IRON RANGES

Exciting new major road building and improvement projects are taking place throughout the UK, linking up our regions and supporting economic growth.

Investment is being made to remedy our infrastructure and to tackle the congestion in our cities, towns & villages and we are well positioned to offer unique solutions and innovations needed to spearhead the way.

MANHOLE COVERS AND GULLY GRATES

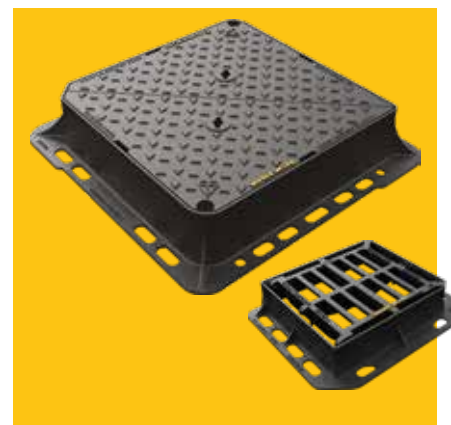
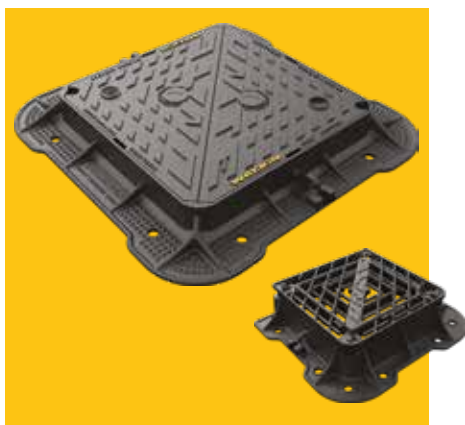
Manhole covers and gully grates are safety critical. With this in mind, we have developed products which incorporate features that help eliminate failure mechanisms, minimising safety issues and optimising installed life cost.

The vast majority of our manhole covers are manufactured from heavy-duty ductile iron, offering durable strength and long-standing performance.

Our extensive ranges include single, double, and triple rectangular, round and square to round manhole covers, including popular and less common sizes. Many of our products are certified by BSi to BS EN 124 and conform with CD 534, as well as other industry specifications, they also carry the Kitemark, meaning our products offer a trusted solution.



Scan to see the
full range online



UNITE

Unite is simply the best performing manhole cover and gully grate range on the market. Packed with features which combine to give Unite the longest life and the lowest whole life cost of any UK manhole cover in it's class.

Manhole Covers Gully Grates

p21: E600

p39: D400

p27: D400



wrekinproducts.com/unite

HIGHWAY

Highway is our most versatile range of manhole covers and gully grates, with a solution for every scenario, including the most complex projects. Its vast variety of options makes it the most extensive range of robust highway ironwork available in the UK.

Manhole Covers Gully Grates

p23: E600

p41: D400

p29: D400



wrekinproducts.com/highway

TRISTAR

Our high-quality and compliant Tristar manhole covers, gully grates and surface boxes offer a competitive solution for groundworkers and specifiers. Ever popular, the Tristar range is the best-selling ductile ironwork range of products in the UK.

Manhole Covers Gully Grates

p32: D400

p45: D400



wrekinproducts.com/tristar



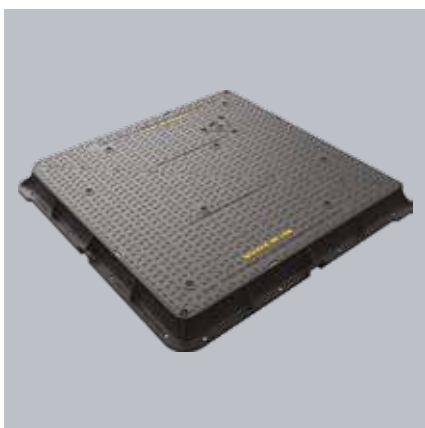
FORCE

Based on our premium Unite range, Force is the most bedding-sympathetic circular, hinged manhole covers available. The hinge utilises our unique anti-debris design, reducing build-up of dirt, ensuring a simple and easy lift every time.

View the range - Page 35



wrekinproducts.com/force



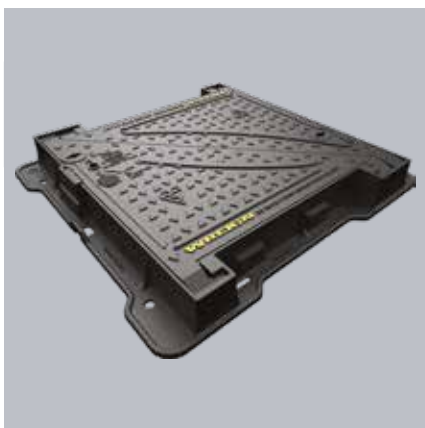
HERCULES

The ideal solution for scenarios that require extra-large D400, Group 4 manhole covers. Manufactured to BS EN 124 together with CD534-compliant skid resistance for high risk locations, Hercules offers a cost effective alternative to large-fabricated steel solutions.

View the range - Page 36



wrekinproducts.com/hercules



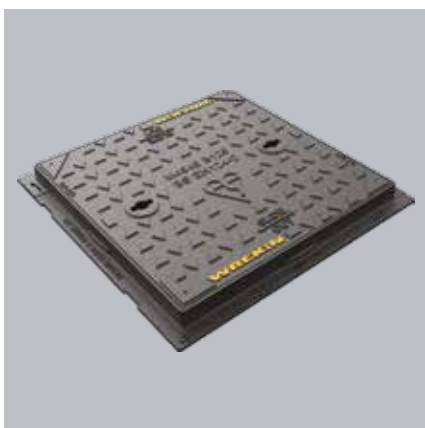
VAULT

Vault secure access covers are commonly used on motorways to secure valuable communication assets. Designed to meet the requirements of CD 534, the Vault range exceeds BS EN 124:2015 D400 requirements and includes a unique hinge system which fixes the covers in an upright position for safe and simple operation.

View the range - Page 37



wrekinproducts.com/vault



SAFESEAL

Safeseal manhole covers have been designed to combine high strength & light weight, and all incorporate a single labyrinth seal, helping to prevent odour escapes and water ingress. The range have been designed for use in load classes A15, B125 and C250.

View the range - Page 48



wrekinproducts.com/safeseal



A LITTLE BIT ABOUT US

At Wrekin, we design, manufacture and supply highway ironwork, access covers, bespoke steel solutions and geosynthetic ground civil engineering products.

Our innovative approach to product design and commitment to quality and service has firmly established our position as a market leader in safety critical civil engineering solutions.

With more than 40 years of technical expertise and leadership, we have an established range of unique, patented products to perfectly suit both specifier and contractor.

Our heritage is highway ironwork. Our core business is the design, manufacture and supply of industry leading gully grates and manhole covers. Our ironwork is tough, and built to sustain the increasing demands on our roads and infrastructure.

We are proud to work in partnership with leading large water and telecommunication utilities across the UK, ensuring motorists, pedestrians and those travelling by trains and aeroplanes enjoy safe, smooth and high-quality journeys.

Another significant area of our business is geosynthetic products, which play an integral role in the majority of building, civil and marine engineering projects. We offer geosynthetic solutions for ground stabilisation, reinforcement, erosion control, drainage, tree and grass protection.



RESPONSIVE

We are dynamic and collaborative problem solvers.



STRAIGHTFORWARD

We value honesty and quality, we strive to provide added value and believe in bringing simplicity to everything we do.



INNOVATIVE

We put innovation and new ideas at the heart of everything we do. We lead the industry in innovation.

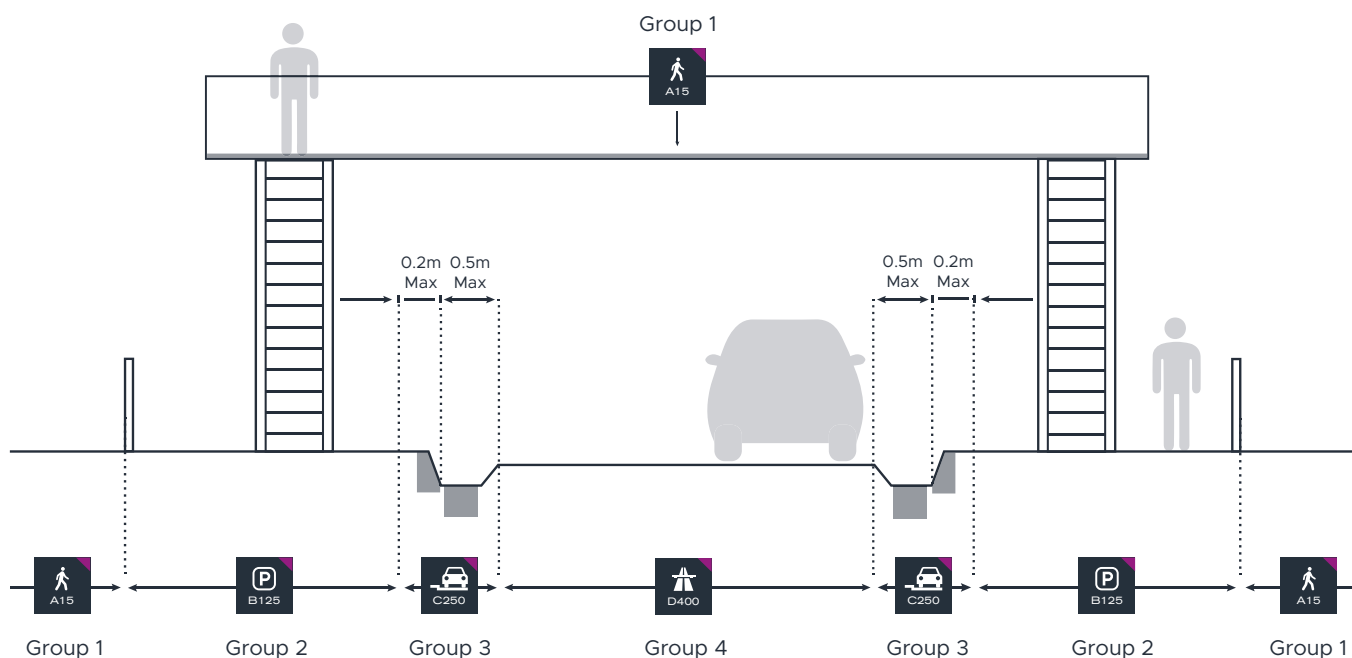


EXPERTS

We are knowledgeable experts who believe in providing a quality service, we value our people and treat our customers as an extension of our family.

STANDARD CLASSIFICATION

The diagram below is taken from BS EN 124:2015 and illustrates the minimum class of products that can be installed for a particular location. All Highway products are tested to D400 and are therefore suitable for use in highway locations.



Loading	BS EN 124	
	Class	Test load
Group 6 Areas imposing particularly high wheel load	F900	900kN
Group 5 Areas imposing high wheel loads	E600	600kN
Group 4 Carriageways of roads (heavy-duty)	D400	400kN
Group 3 Gully tops in kerbside channels of roads	C250	250kN
Group 2 Foot-ways, pedestrian areas etc.	B125	125kN
Group 1 Areas inaccessible to motor vehicles	A15	15kN

STANDARDS AND REGULATIONS

BS EN 124:2015

“Gully tops and manhole tops for vehicle and pedestrian areas. Parts 1 to 6.”

- ▶ Contains the essence of the 1994 standard together with the introduction of some new, additional tests. For iron castings, these additional tests comprise of cover stability under edge loads and resistance to unauthorised chamber access by minors.
- ▶ Separate requirements for products made of different materials.
- ▶ This standard is published and available for purchase from BSI.
- ▶ The European Commission (and the UK) has yet to harmonise (equivalent to UK Designation) this standard and therefore CE (UKCA) marking does not currently apply.
- ▶ All of Wrekin's manhole cover and gully grating castings conform to this standard. Wrekin was the first company nationally to have its ironwork range Kitemarked to this standard.

BS 7903:2020

“Guide to selection and use of gully tops and manhole covers for installation within the highway.”

- ▶ A normative document referenced in Highways England (and Dept. for Infrastructure N.I., Transport for Scotland, Welsh Government) Technical Regulation CD534.
- ▶ The home for a number of requirements devolved from former Highways England Advice Note HA104/09, not currently included within CD534. e.g. Bedding mortar properties and placement methods, Frame Flange requirements, BS7903 Web/Gusset profile reference, the use of Adjustment Units in lieu of Packing Materials for bedding of ironwork, etc.
- ▶ Not currently home to the former HA104/09 ironwork bedding pressure requirement of 2.1N/mm² (max.) but, as the mortar properties in this document are unchanged by the devolution process, the ironwork bedding pressure maximum requirement should be considered as still applicable.

DMRB CD 534 VO.1.0

“Chamber tops and gully tops for road drainage and services (formerly HA 104/09).”

- ▶ Based on leading research, it contains requirements over and above those in BS EN 124 for Skid Resistance.
- ▶ The updated document stipulates only one type of skid resistance test for covers with raised chequer. Previously it could be satisfied with the conventional pendulum test
- ▶ It specifies the traffic volume threshold where D400 load-class covers should be upgraded to E600.
- ▶ The requirements include, but are not limited to; moving ironwork from carriageway locations, citing minimum frame depths, frame weights, frame flange areas, frame bedding pressures, skid resistance for defined traffic types, gully waterway area, etc.
- ▶ This document contains the requirements for road chamber top and gully top installations on motorway and all-purpose trunk roads but its citation in specifications for other road types means that its requirements can also apply to those.

More information about v0.1.0 on the next page.

DMRB CD 526 REV.3

“Spacing of Road Gullies (formerly HA102/17)”

- ▶ Referenced in BS7903:2020 to indicate its use as a guide for BS EN 124 gully grating spacing.
- ▶ Provides scheme designers with information on an individual gully grating's hydraulic capacity for a highway location's expected; rainfall, drainage area(s) and gradient(s) in order to determine the required classification for efficient spacing of gully grating installations.
- ▶ Enables manufacturers to classify their gully grating products based on hydraulic capacity using prescribed formulae.



A GUIDE TO **NATIONAL HIGHWAYS** **CD 534 v0.1.0**

National Highways has updated a significant set of its requirements for manhole covers and gully grates installed on the road network, for which it is responsible. The document in question is CD 534, which was first released in February 2020 and has now been updated to version 0.1.0.



CD 534 originally replaced HA 104/09 and forms part of National Highways Design Manual for Roads and Bridges (DMRB). CD 534 equally applies to the network managed by Transport for Scotland.

FRAME BEDDING PRESSURE ON CHAMBER WALLS

CD 534 recognises that load transfer from the frame to the underlying bedding material is an important factor in determining the lifetime of an installation. To ensure that an adequate area is provided to spread the load, without over-stressing the bedding material, CD 534 sets a minimum flange area for all 600x600mm and 675x675mm manhole cover frames. The required minimum frame flange areas are shown in the table below:

As with HA 104/09, these minimum flange areas equate to the 'nominal bearing pressure' of 2.1N/mm². This was omitted from the first version of CD 534. Nominal bearing pressure is calculated by dividing the 400kN (D400) or 600kN (E600) test load by the flange area.

All Wrekin Highway and Unite ranges comply with this requirement.

Cover duty	Minimum flange area (mm ²)
D400	190,000
E600	285,000

FRAME WEIGHTS

To ensure frames are stiff enough to resist the loads involved, in this latest version of CD 534, a lower limit of frame mass has been specified for all 600x600mm and 675x675mm manhole cover frames.

All Wrekin Highway and Unite frames satisfy this requirement.

FRAME DEPTH

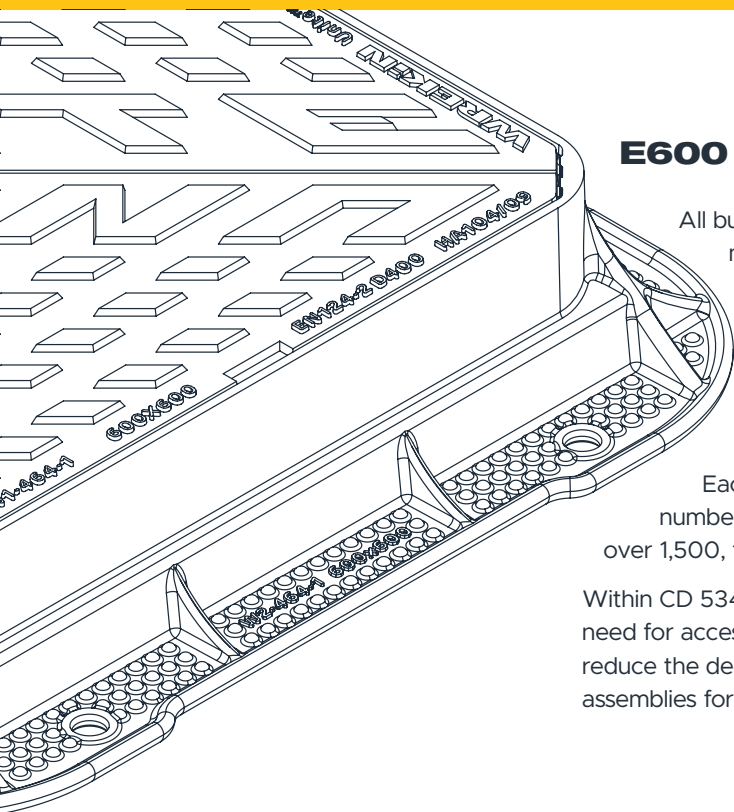
A frame depth of 150mm is now required on all installations on motorways and all-purpose trunk roads.

All Wrekin Highway and Unite ranges are available with 150mm frame depth options.

TESTING OF SKID-RESISTANCE

CD 534 now stipulates only one type of test for covers with raised chequer. Previously it could be satisfied with the conventional pendulum test, which measures the resistance caused to a swinging 'shoe' by the cover surface, or the more recent WRc test, which measures a small tyre's resistance to sideways slip caused by the cover surface. It is now mandatory to demonstrate compliance with the WRc test.

All manhole covers with the Wrekin triangular or Unite chequer satisfy these requirements of CD 534. This means all Wrekin Highway and Unite ranges comply with the requirement.



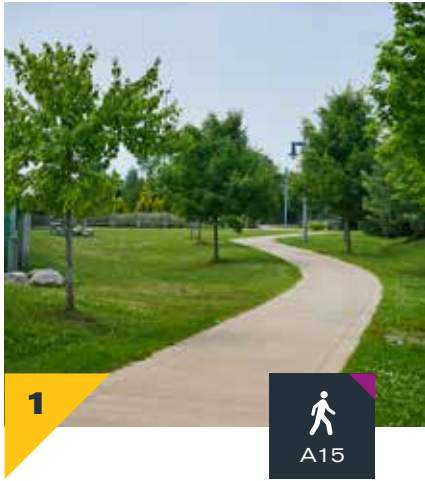
E600 REQUIREMENTS

All busy roads on the National Highways network require E600 rated manhole covers. This does not affect gully grates which are required to be D400.

The key method to identify if the road is sufficiently busy, is to look at the number of light goods vehicles using that section of road. This data can be found on the Department for Transport website.

Each count point has its own web page on which you can find the number of light goods vehicles using that stretch of road. If this figure is over 1,500, then any new manhole cover will have to be E600.

Within CD 534, there is also a new note for specifiers and contractors, in which the need for access covers to be sited in carriageways has been removed. This may reduce the demand for some carriageway covers, instead requiring lighter duty assemblies for positioning in the verge or pedestrian areas.



GROUP 1 - CLASS A15

Manhole covers and gratings capable of withstanding a 1.5 tonne test load. For use in areas which can only be used by pedestrians and cyclists.

See page 57.



GROUP 2 - CLASS B125

Manhole covers and gratings capable of withstanding a 12.5 tonne test load. For use in foot-ways, pedestrian areas and comparable areas such as car parks.

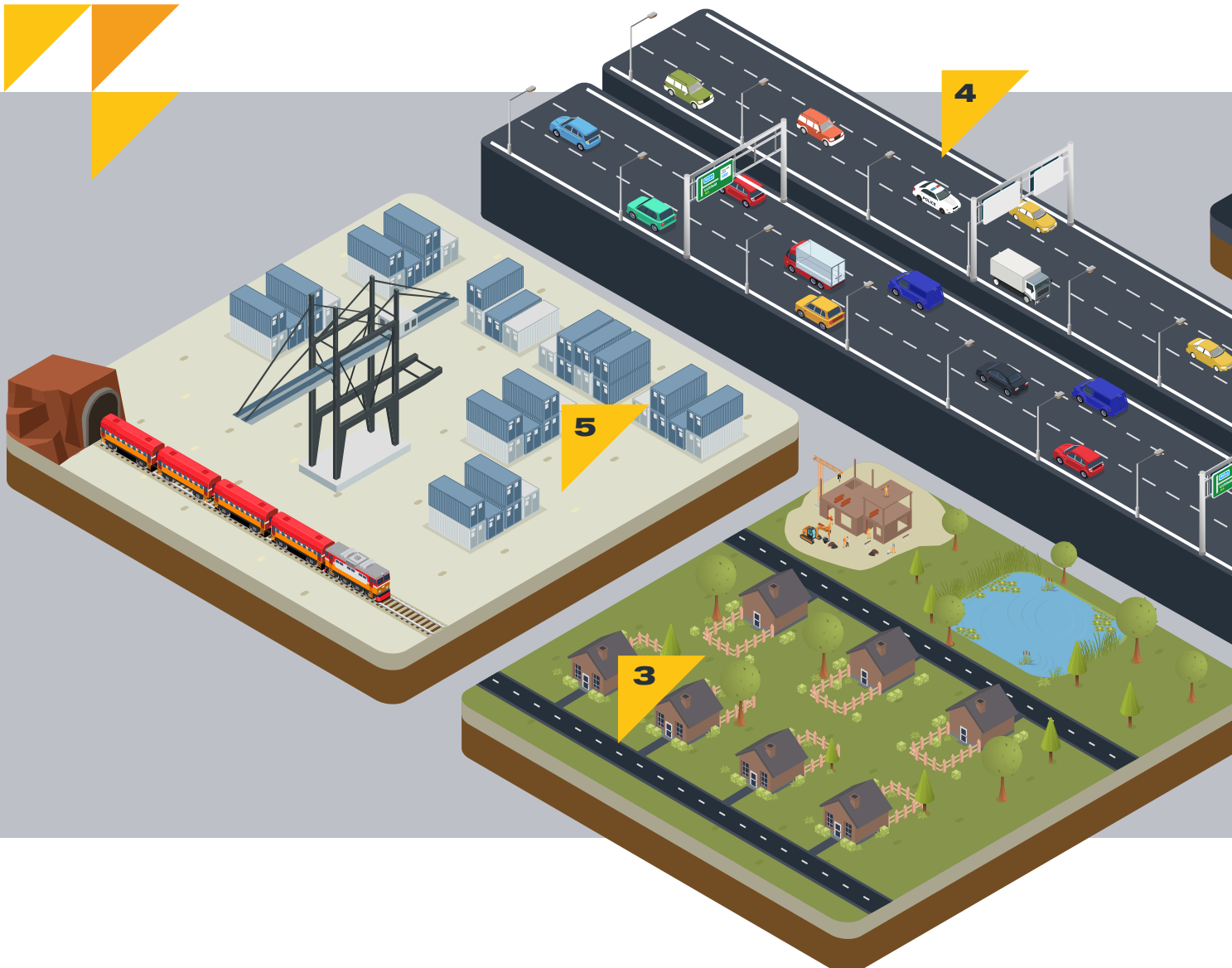
See page 51.



GROUP 3 - CLASS C250

Manhole covers and gratings capable of withstanding a 25 tonne test load. For installation no more than 500mm from the kerb face into the carriageway.

See page 47.





GROUP 4 - CLASS D400

Manhole covers and gratings capable of withstanding a 40 tonne test load. For use in areas where pneumatic-tyred cars and lorries have access, including carriageways, hard shoulders and pedestrian areas. All units to be either non rock or silent in operation.

See page 25.



GROUP 5 - CLASS E600

Manhole covers and gratings capable of withstanding a 60 tonne test load. For use in areas where heavy wheel or high point loads from pneumatic and non-pneumatic-tyred vehicles are imposed, such as loading areas or docks.

See page 19.



THE ULTIMATE GROUNDWORKER PACKAGE



ARMADILLO & CLICKLIFT



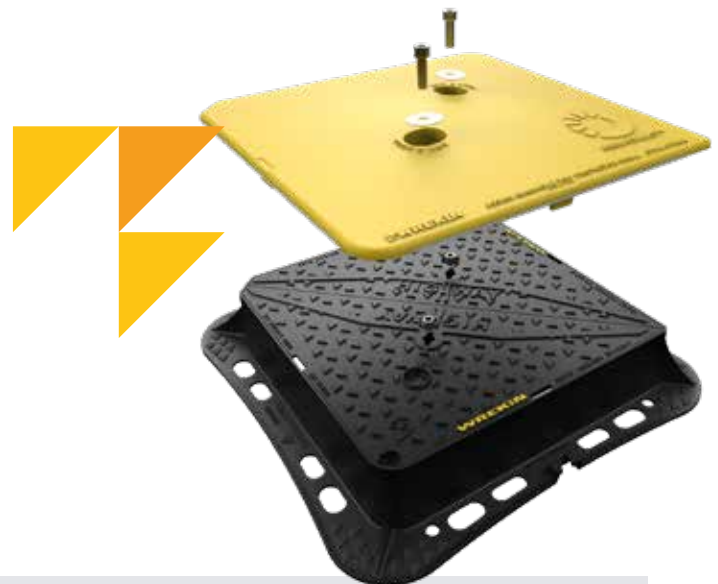
ARMADILLO THE HARD HAT FOR YOUR IRONWORK

Armadillo is a complete range of protector shells, designed to be placed over manhole covers and gully grates to provide enhanced protection during the construction phase.

Armadillo provides protection from construction site traffic, including tracked vehicles, and can be easily removed when the final surfacing is completed. This ensures manhole covers and gully grates can start their service life in 'as new' condition to optimise longevity.

MEET THE RANGE

- ▶ Armadillo manhole cover protector shell is a reusable shell that is compatible with both Highway and Tristar manhole covers.
- ▶ Armadillo gully grate protector shell is compatible with Tristar gullies when installed proud of the binder.



Armadillo offers benefits for everyone that bring cost, time and effort savings. In fact, all involved in the process of specifying, procuring, installing and maintaining ironwork and drainage systems will find benefits.

- ▶ **No jet washing**
Save valuable time and money by eliminating the need to jet wash muddy manhole covers.
- ▶ **No cracked ironwork**
Significantly reduces the risk of cracking to ironwork which can lead to rejection by adopting authorities.
- ▶ **No unidentified ironwork**
The bold yellow coated shell and grille plates make it easier for operatives to identify and avoid ironwork.
- ▶ **No silt or chemicals**
Helps to stop debris from entering the chamber and drainage system, at the source.
- ▶ **No need for specialist teams**
Removes the need for specialist teams and specialist equipment saving time, resources and money.
- ▶ **No excavation**
When used with Clicklift, ironwork can be fitted right first time, removing the need to excavate to raise or reinstall.

View the range - Page 68

CLICKLIFT RAPID FRAME RAISING SYSTEM

Clicklift removes the time and resources required to dig out and reinstall manhole frames to suit the final adoptable road surface. This eliminates the potential damage to manhole covers during construction, minimises disruption and removes the potential for residents claims for damage to their vehicles.

Clicklift provides housing developers and contractors with huge savings in terms of time, money and hassle. Allowing whole estates to have their covers raised to the final surfacing level, in as little as a few hours.

Available with four fixed incremental raising heights, 30mm, 40mm, 50mm and 60mm, Clicklift offers contractors and developers huge time and cost savings, as well as eliminating common nuisance issues for residents on new build developments.



Saves up to 80% of installation costs



Saves weeks of reinstallation time, raising covers for asphaltting



Substantially reduces site operatives' and home owners' exposure to risk.



“ We initially ordered 20 Clicklift frames but, as soon as we realised how good they were to use, **we adopted the system for the whole of the scheme. The system has worked extremely well for us** and we were impressed with how much it reduced costs and saved time.

Everyone thought it was a good product. We even had four or five different people involved in construction who came to see it and all were impressed. ”

Robin Guild,
Operations Director, Guild Homes

[View the range - Page 66](#)



HIGHWAY HALOHINGE®

HINGE AND LIFT OUT

An expansion of the Highway range, our hinge-and-lift-out (HALO) Halohinge range allows for the covers to be safely removed or hinged open using the same standard BS 7903 lifting keys. The covers can then be hinged to 100 degrees, where they are secured in place.



Halohinge's innovative design incorporates inboard hinges (on the inside of the frame), allowing easy surfacing compaction against the straight edges of the frame. This is unlike common alternatives, which have protruding hinges which run the risk of compaction equipment applying destructive forces to the hinge housing and foundation.

The inboard hinges also provide the added benefit of preventing hinge pockets from becoming clogged with dirt and debris, ensuring the hinges will reliably operate and promotes improved health and safety for maintenance operatives.

Highway Halohinge covers are also compatible with Gritblocker, our anti-blockage keyway insert, ensuring safe operation first time, every time.

View the range - Page 31



Safety-stop hinges prevent covers falling once hinged open.



Concealed hinges prevent debris entering the hinge and limiting its movement.



Mechanical lifting points are provided.



Enlarged frame corners help to dissipate load minimising bearing pressure.



Safety keyway prevents accidental disengagement of the lifting key during the handling process.



Covers open sequentially, with standard BS7903 lifting keys.



Each cover is less than 25kg, allowing for a single person lift.



Inboard hinges prevent dirt and debris clogs, and protect hinge housing from damage during compaction.



UNIPAK™

Unipak mortar is a rapid-set, high strength bedding mortar designed to prevent bedding failure, and is suitable for all UK BS EN 124-2 applications.

It can be used on its own or with Uniform chamber adjustment units which provide strength, durability and reduce material usage.



Early road opening

Unipak cures rapidly, in as little as 30 minutes.



Simple to use

Easy to mix, manipulate and form. Unipak has low notch sensitivity and high slump resistance.



Standard installation

Simple installation process using conventional tools.



Meets and exceeds the standards

Exceeds CD 534 and ideal for BS EN 124 applications (Group 1 to 4).



Easy to store

Unopened containers can be stored in a cool, dry location, away from extremes of temperature.

View the range - Page 70



GRITBLOCKER

Gritblocker is an anti-blockage keyway insert which promotes health and safety, and simply fits into the manhole cover keyway preventing debris from blocking the opening, allowing a lifting key to be inserted.

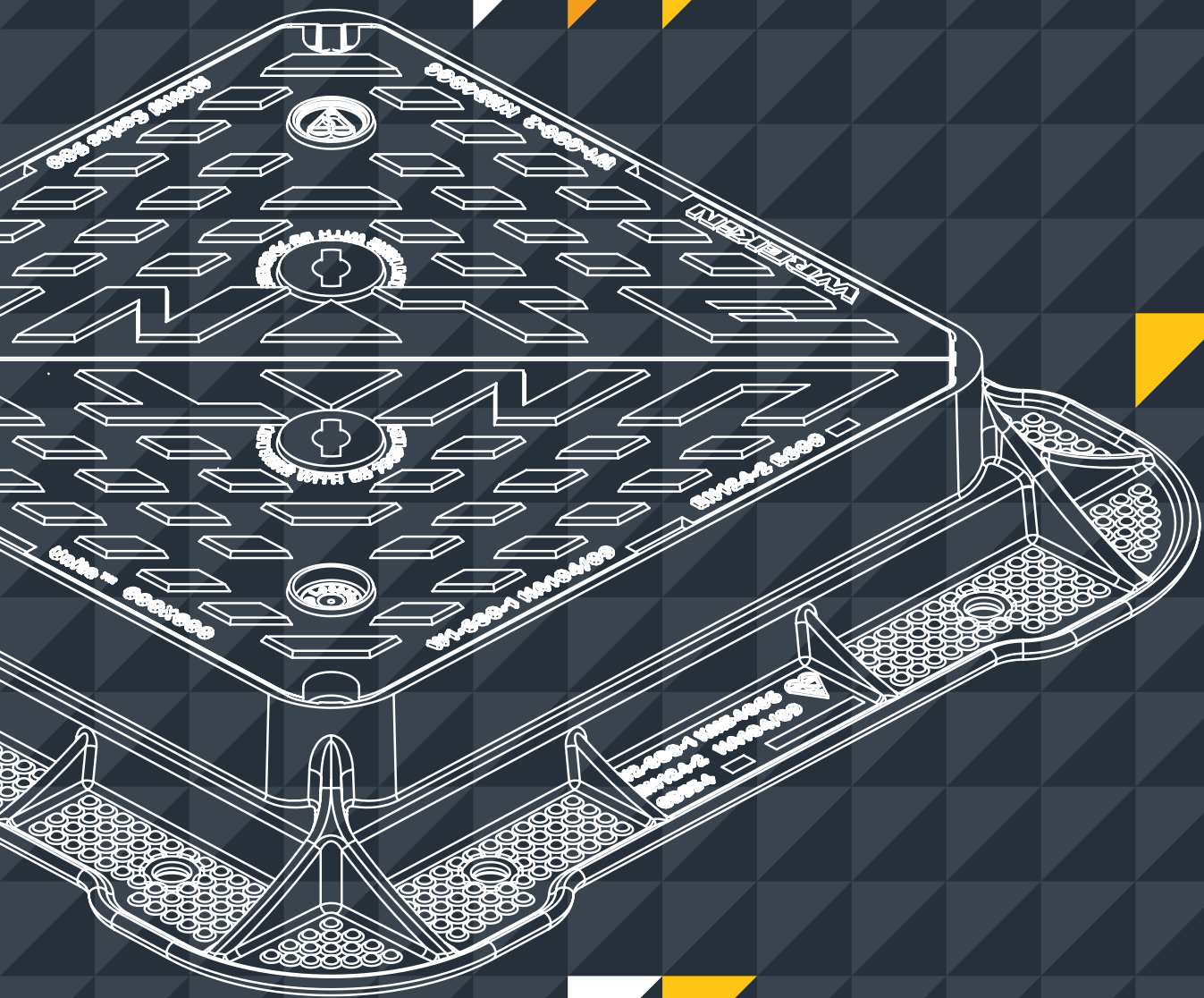
View the range - Page 72



SCREWLIFT

Screwlift is our simple and rapid manhole frame levelling system and is suitable for use with nearly all of our D400 and E600 manhole covers and gully grates.

View the range - Page 72





E600 CONTENTS

Manhole covers and gratings capable of withstanding a 60 tonne test load.

For use in areas where heavy wheel or high point loads from pneumatic and non-pneumatic-tyred vehicles are imposed, such as loading areas or docks.



Manhole Covers



Unite

21



Highway

23





UNITE™ E600 MANHOLE COVERS

Simply the best performing E600 manhole cover range available. The unique features designed into Unite combine to give it an exceptionally long life and low whole-life cost. Designed and manufactured to exceed BS EN 124 and Highways England's Design Manual for Roads and bridges (DMRB) specification CD 534 v0.1.0 (formerly HA 104/09), MCHW and Series 500.

ENGINEERED FOR AN EXCEPTIONALLY LONG LIFE:

- ▶ Unite has over 20 years and 500,000 installations with zero reported failures
- ▶ A unique cover design substantially reduces seat wear
- ▶ Frame features that are sympathetic to bedding materials
- ▶ Fully compliant with BS EN 124-2:2015
- ▶ Complies with DMRB, MCHW and Series 500.
- ▶ Meets CD 534 v0.1.0 flange area requirements & less than 2.1 N/mm² bedding pressure.
- ▶ Kitemarked by BSI
- ▶ 100% recyclable product



TEXTURED FLANGE SURFACE FIT AND FORGET

Both the top and bottom of the flange surfaces provide a textured finish for bedding mortar to adhere to, allowing Unite to utilise the adhesive qualities, as well as the mechanical properties of bedding mortar. We also built in a round edged frame as standard to prevent sharp edges from cutting into and breaking mortar away over time.



Yellow colour for emphasis only, final product is black.

SEAL PLATES RETROFIT AS STANDARD

Low leak and no leak seal plates can be retrofitted to the Unite range as an optional extra. This enables contractors to simply return to an installation and install the required sealing plate with minimal disruption and inconvenience.

See page 73



UNIVERSAL BEAM A STRENGTH ABOVE THE REST

Developed using advanced computer modelling and testing, this technology, incorporated in bridge and building construction, offers maximum strength and stiffness, dissipating the effects of forces exerted from high volumes of traffic and reducing cover wear.

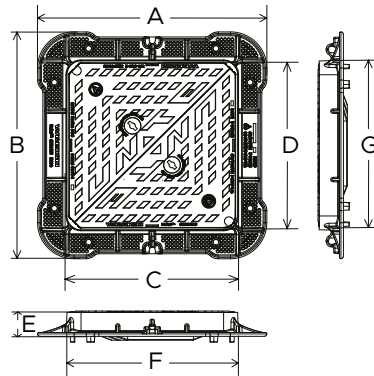
Available Options:

- ▶ Locking
- ▶ Badged (e.g. 'SW', 'FW' etc.)
- ▶ Ventilation holes
- ▶ High pressure no leak plates
- ▶ Safety grille
- ▶ Enhanced anti-slip coating

Available Accessories:

- ▶ p72: Screwlift™
- ▶ p72: BS 7903 lifting keys
- ▶ p73: Low leak sealing plate
- ▶ p73: No leak sealing plate

UNITE E600 MANHOLE COVERS - RECTANGULAR



Product Features

- ▶ 70+PSRV tested at top surface of chequer.
- ▶ Anti-flex covers prevent the causes of cover seating wear, eliminating excessive noise and catastrophic failure.
- ▶ Mechanical lifting points are provided.
- ▶ Indexed covers ensure correct fit first time, every time.
- ▶ Specially designed cover support geometry reduces movement relative to the frame, minimising seating wear.
- ▶ Gritblocker™ anti-blockage keyway insert comes pre-installed.
- ▶ Meets CD 534 v0.1.0 flange area requirements & less than 2.1 N/mm² bedding pressure.

STOCK CODE	OVERALL FRAME (A x B mm)	CLEAR OPENING (C x D mm)	FRAME DEPTH (E mm)	BASE OPENING (F x G mm)
DMTOE4/6060/KUE	880 x 880	600 x 600	100	655 x 655
DMTOE4/6767/KUE	945 x 945	675 x 675	100	730 x 730
DMTOE6/6060/KUE	880 x 880	600 x 600	150	655 x 655
DMTOE6/6767/KUE	945 x 945	675 x 675	150	730 x 730



HIGHWAY® E600 MANHOLE COVERS

Highway is our most versatile range of manhole covers and gully grates, with a solution for every scenario, including the most complex projects.

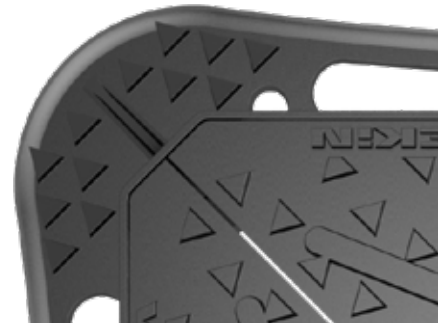
Its vast variety of options makes it the most extensive range of robust highway ironwork available in the UK, which our customers rely on to deliver a high quality and long-lasting performance.



70+PSRV tested at top surface of chequer.



Enlarged frame corners help to dissipate load minimising bearing pressure.



Indexed corners ensure correct orientation first time, every time.



Safety keyway prevents accidental disengagement of the lifting key during the handling process.



Can be retrofitted with a customer or application specific ID badge.

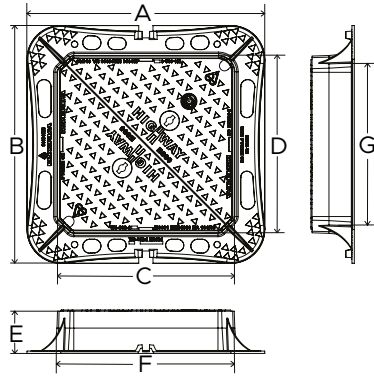
Available Options:

- ▶ Locking
- ▶ Badged (e.g. 'SW', 'FW' etc.)
- ▶ Ventilation holes
- ▶ Floor & odour control plates
- ▶ Safety grille
- ▶ Enhanced anti-slip coating

Available Accessories:

- ▶ p72: Gritblocker™
- ▶ p72: Screwlift™
- ▶ p72: BS 7903 lifting keys

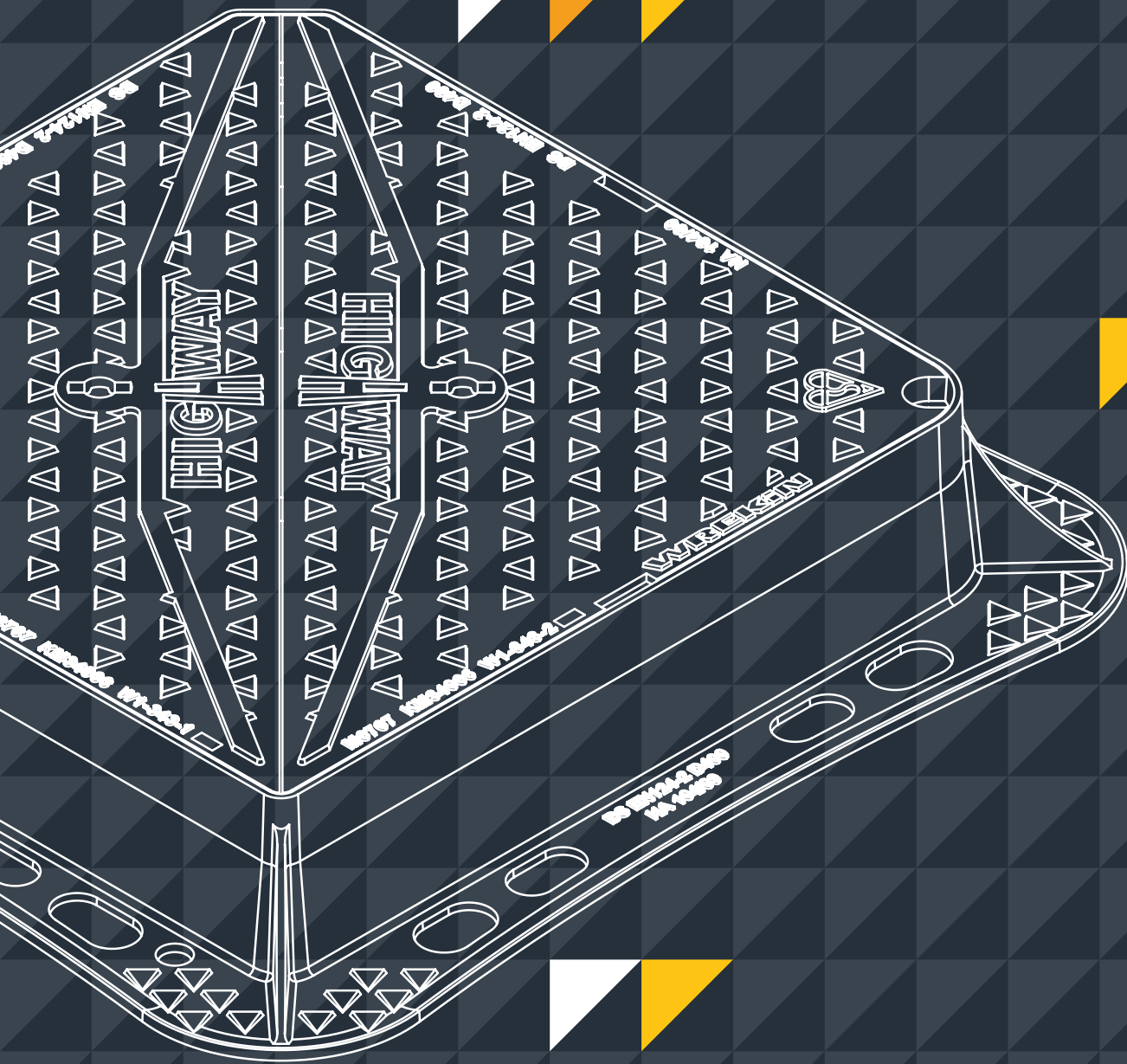
HIGHWAY E600 MANHOLE COVERS - RECTANGULAR



Product Features

- ▶ 70+PSRV tested at top surface of chequer.
- ▶ Enlarged frame corners help to dissipate load minimising bearing pressure.
- ▶ Indexed corners ensure correct orientation first time, every time.
- ▶ Mechanical lifting points are provided.
- ▶ Can be retrofitted with a customer or application specific ID badge.
- ▶ Safety keyway prevents accidental disengagement of the lifting key during the handling process.
- ▶ Meets CD 534 v0.1.0 flange area requirements & less than 2.1 N/mm² bedding pressure.

STOCK CODE	OVERALL FRAME (A x B mm)	CLEAR OPENING (C x D mm)	FRAME DEPTH (E mm)	BASE OPENING (F x G mm)
DMTOE4/6060/KH	845 x 845	610 x 610	100	635 x 635
DMTOE4/6767/KH	900 x 900	685 x 685	100	710 x 710
DMTOE6/6060/KH	845 x 845	610 x 610	150	635 x 635
DMTOE6/6767/KH	900 x 900	685 x 685	150	710 x 710
DMTOE6/1267/KH	1,460 x 895	1,220 x 675	150	1,245 x 700





D400 CONTENTS

Manhole covers and gratings capable of withstanding a 40 tonne test load.

For use in areas where pneumatic-tyred cars and lorries have access, including carriageways, hard shoulders and pedestrian areas. All units to be either non rock or silent in operation.

Manhole Covers

Unite	27
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UNITE™

D400 MANHOLE COVERS

Simply the best D400 access cover range available in the market. Packed full of design features that combine to give Unite an exceptionally long life and low whole life cost. Designed and manufactured to exceed BS EN 124 and Highways England's Design Manual for Roads and bridges (DMRB) specification CD 534 v0.1.0 (formerly HA 104/09).

Available Options:

- ▶ Locking
- ▶ Badged (e.g. 'SW', 'FW' etc.)
- ▶ Ventilation holes
- ▶ High pressure no leak plates
- ▶ Safety grille
- ▶ Enhanced anti-slip coating

Available Accessories:

- ▶ p72: Screwlift™
- ▶ p72: BS 7903 lifting keys
- ▶ p73: Low leak sealing plate
- ▶ p73: No leak sealing plate

Engineered for an exceptionally long life:

- ▶ In service on highways for over 20 years
- ▶ Over 500,000 installations with zero reported failures
- ▶ Unique cover design substantially reduces seat wear
- ▶ Frame features that are sympathetic to bedding materials
- ▶ Exceeds BS EN 124-2:2015
- ▶ Complies with DMRB and Series 500
- ▶ Meets CD 534 v0.1.0 flange area requirements & less than 2.1 N/mm² bedding pressure
- ▶ Kitemarked by BSI
- ▶ 100% recyclable product



Internal accessory receiver

Unite incorporates an internal skirt with a sealing face to mate with different specifications of seal plate, depending on the application requirements.

See page 73

Yellow colour for emphasis only, final product is black. Only compatible with references with '/KUE'



Mortar 'gripper' system

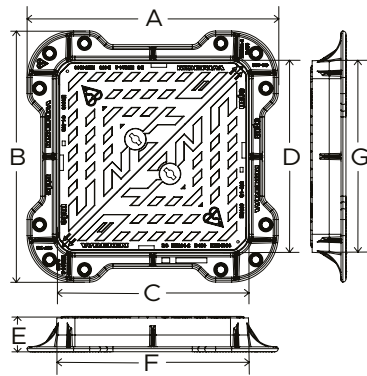
The tread feature is proven to be more effective in interlocking with the bedding material than the flat underside flange faces of other products.



Locking bolt provision

Access to manhole cover and gully chambers can be controlled with the use of factory fitted locking bolts.

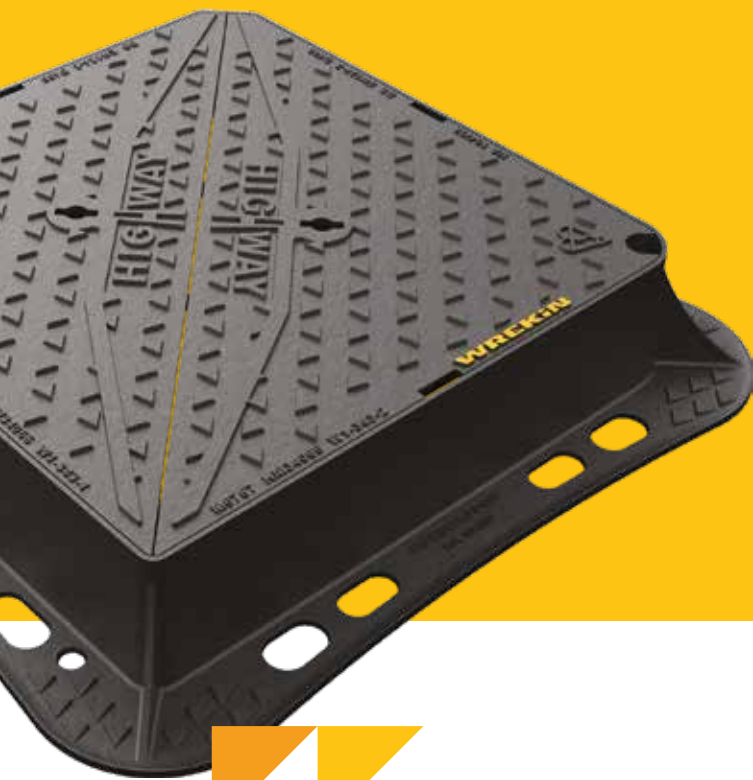
UNITE D400 MANHOLE COVERS - RECTANGULAR



Product Features

- ▶ 70+PSRV tested at top surface of chequer.
- ▶ Gritblocker™ anti-blockage keyway insert comes pre-installed.
- ▶ Textured mortar engagement flange improves the bedding mortar grip to the frame, reducing lateral shift and mortar breakdown.
- ▶ Anti-flex covers prevent the causes of cover seating wear, eliminating excessive noise and catastrophic failure.
- ▶ Specially designed cover support geometry reduces movement relative to the frame, minimising seating wear.
- ▶ Enlarged frame corners help to dissipate load minimising bearing pressure.
- ▶ Safety keyway prevents accidental disengagement of the lifting key during the handling process.
- ▶ Mechanical lifting points are provided.
- ▶ Meets CD 534 v0.1.0 flange area requirements & less than 2.1 N/mm² bedding pressure.

STOCK CODE	OVERALL FRAME (A x B mm)	CLEAR OPENING (C x D mm)	FRAME DEPTH (E mm)	BASE OPENING (F x G mm)
DMTOD4/6060/KU	810 x 810	600 x 600	110	630 x 630
DMTOD4/6767/KU	885 x 885	675 x 675	110	705 x 705
DMTOD6/6767/KU	885 x 885	675 x 675	150	705 x 705
DMTOD6/1267/KU	1,465 x 920	1,220 x 675	150	1,250 x 710
DMTOD6/1867/KU	2,075 x 920	1,830 x 675	150	1,860 x 710
DMTOD6/6060/KUE	820 x 820	600 x 600	150	655 x 655



HIGHWAY®

D400 MANHOLE COVERS

Highway is our most versatile range of manhole covers and gully grates, with a solution for every scenario, including the most complex projects.

Its vast variety of options makes it the most extensive range of robust highway ironwork available in the UK, which our customers rely on to deliver a high quality and long-lasting performance.



70+PSRV tested at top surface of chequer.



Enlarged frame corners help to dissipate load minimising bearing pressure.



Indexed corners ensure correct orientation first time, every time.



Safety keyway prevents accidental disengagement of the lifting key during the handling process.



Can be retrofitted with a customer or application specific ID badge.

Available Options:

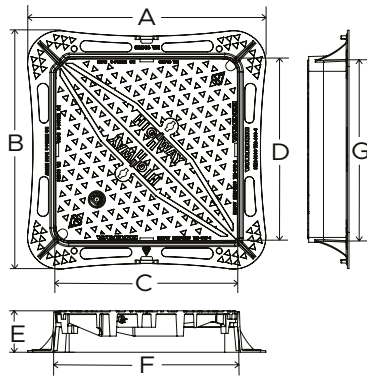
- ▶ Locking
- ▶ Badged (e.g. 'SW', 'FW' etc.)
- ▶ Ventilation holes
- ▶ Floor & odour control plates
- ▶ Safety grille
- ▶ Enhanced anti-slip coating

Available Accessories:

- ▶ p66: Clicklift™*
- ▶ p68: Armadillo*
- ▶ p72: Gritblocker™
- ▶ p72: Screwlift™
- ▶ p72: BS 7903 lifting keys

* Not all covers are compatible. For compatibility charts see pages 66 & 69.

HIGHWAY D400 MANHOLE COVERS - RECTANGULAR

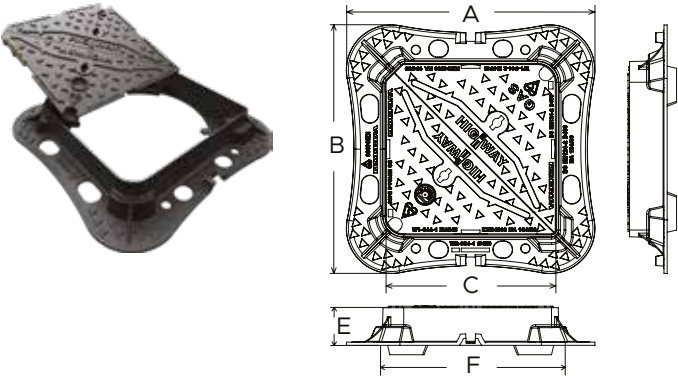


Product Features

- ▶ 70+PSRV tested at top surface of chequer.
- ▶ Enlarged frame corners help to dissipate load minimising bearing pressure.
- ▶ Indexed corners ensure correct orientation first time, every time.
- ▶ Mechanical lifting points are provided.
- ▶ Can be retrofitted with a customer or application specific ID badge.
- ▶ Safety keyway prevents accidental disengagement of the lifting key during the handling process.
- ▶ Select products compatible with Clicklift, Armadillo, Gritblocker and Screwlift. See all accessories on page 65.
- ▶ Meets CD 534 v0.1.0 flange area requirements & less than 2.1 N/mm² bedding pressure.

STOCK CODE	OVERALL FRAME (A x B mm)	CLEAR OPENING (C x D mm)	FRAME DEPTH (E mm)	BASE OPENING (F x G mm)
DMTOD4/4545/KH	665 x 665	450 x 450	100	475 x 475
DMTOD4/6045/KH	815 x 665	600 x 450	100	625 x 475
DMTOD4/6060/KH	810 x 810	600 x 600	100	620 x 620
DMTOD4/6767/KH	885 x 885	675 x 675	100	700 x 700
DMTOD4/7560/KH	965 x 815	750 x 600	100	775 x 625
DMTOD4/7575/KH	965 x 965	750 x 750	100	775 x 775
DMTOD4/9060/KH	1,115 x 815	900 x 600	100	925 x 625
DMTOD4/9090/KH	1,130 x 1,130	900 x 900	100	925 x 925
DMTOD4/1267/KH	1,460 x 895	1,220 x 675	100	1,245 x 700
DMTOD6/4545/KH	665 x 665	450 x 450	150	475 x 475
DMTOD6/6045/KH	815 x 665	600 x 450	150	625 x 475
DMTOD6/6060/KH	810 x 810	600 x 600	150	620 x 620
DMTOD6/6767/KH	885 x 885	675 x 675	150	695 x 695
DMTOD6/7560/KH	965 x 815	750 x 600	150	775 x 625
DMTOD6/7575/KH	965 x 965	750 x 750	150	775 x 775
DMTOD6/9060/KH	1,115 x 815	900 x 600	150	925 x 625
DMTOD6/9090/KH	1,130 x 1,130	900 x 900	150	925 x 925
DMTOD6/1267/KH	1,460 x 895	1,220 x 675	150	1,245 x 700

HIGHWAY D400 MANHOLE COVERS - SQUARE TO ROUND



Product Features

- ▶ 70+PSRV tested at top surface of chequer.
- ▶ Enlarged frame corners help to dissipate load minimising bearing pressure.
- ▶ Indexed corners ensure correct orientation first time, every time.
- ▶ Mechanical lifting points are provided.
- ▶ Can be retrofitted with a customer or application specific ID badge.
- ▶ Safety keyway prevents accidental disengagement of the lifting key during the handling process.
- ▶ Meets CD 534 v0.1.0 flange area requirements & less than 2.1 N/mm² bedding pressure.
- ▶ Compatible with Reducer Ring accessory, p73.

STOCK CODE	OVERALL FRAME (A x B mm)	CLEAR OPENING (C mm)	FRAME DEPTH (E mm)	BASE OPENING (F mm)
DMTOD4/4545/KHSQR	660 x 660	Ø 450	100	Ø 490

HIGHWAY HALOHINGE

D400 MANHOLE COVERS

Highway Halohinge D400 manhole covers offer all the benefits of the Highway range with the additional benefit of the Hinge and Lift Out mechanism, allowing the covers to be hinged to 100° and also completely removed with standard BS 7903 lifting keys when required.



Covers open sequentially, with standard BS7903 lifting keys.

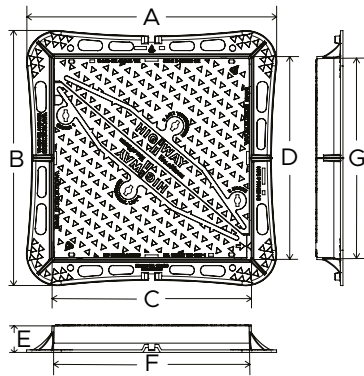


Safety-stop hinges prevent covers falling once hinged open.



Inboard hinges prevent dirt and debris clogs, and protect hinge housing from damage during compaction.

HIGHWAY HALOHINGE D400 MANHOLE COVERS



Product Features

- ▶ 70+PSRV tested at top surface of chequer.
- ▶ Enlarged frame corners help to dissipate load minimising bearing pressure.
- ▶ Indexed corners ensure correct orientation first time, every time.
- ▶ Mechanical lifting points are provided.
- ▶ Can be retrofitted with a customer or application specific ID badge.
- ▶ Safety keyway prevents accidental disengagement of the lifting key during the handling process.
- ▶ Sequential cover opening.
- ▶ Safety-stop hinges prevent covers falling once opened.
- ▶ Gritblocker™ anti-blockage keyway insert comes pre-installed.
- ▶ Meets CD 534 v0.1.0 flange area requirements & less than 2.1 N/mm² bedding pressure.

STOCK CODE	OVERALL FRAME (A x B mm)	CLEAR OPENING (C x D mm)	FRAME DEPTH (E mm)	BASE OPENING (F x G mm)
DMHTOD4/6045/KH	810 x 660	600 x 450	100	620 x 470
DMHTOD4/6060/KH	815 x 815	600 x 600	100	625 x 625
DMHTOD4/6767/KH	890 x 890	675 x 675	100	700 x 700
DMHTOD4/7560/KH	960 x 810	750 x 600	100	770 x 620
DMHTOD4/7575/KH	960 x 960	750 x 750	100	770 x 770
DMHTOD4/9060/KH	1,110 x 810	900 x 600	100	920 x 620
DMHTOD6/6060/KH	815 x 815	600 x 600	150	625 x 625
DMHTOD6/6767/KH	890 x 890	675 x 675	150	700 x 700
DMHTOD6/9060/KH	1,110 x 810	900 x 600	150	920 x 620



TRISTAR™ D400 MANHOLE COVERS

Our high-quality and compliant Tristar access covers, gully grates and surface boxes offer a competitive solution for groundworkers and specifiers. Ever popular, the Tristar range is the best-selling ductile ironwork range of products in the UK.



70+PSRV tested at top surface of chequer by UKAS accredited 3rd party.



Enlarged frame corners help to dissipate, load minimising bearing pressure.



Indexed corners ensure correct orientation first time, every time.



Specially designed cover support geometry reduces movement relative to the frame, minimising seating wear.

Available Options:

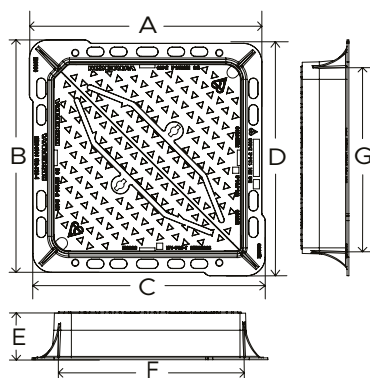
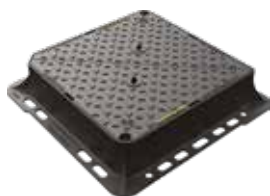
- ▶ Locking
- ▶ Badged (e.g. 'SW', 'FW' etc.)
- ▶ Ventilation holes
- ▶ Floor & odour control plates
- ▶ Safety grille
- ▶ Enhanced anti-slip coating

Available Accessories:

- ▶ p66: Clicklift™*
- ▶ p68: Armadillo*
- ▶ p72: Gritblocker™
- ▶ p72: Screwlift™
- ▶ p72: BS 7903 lifting keys

* Not all covers are compatible. For compatibility charts see pages 66 & 69.

TRISTAR D400 MANHOLE COVERS - RECTANGULAR

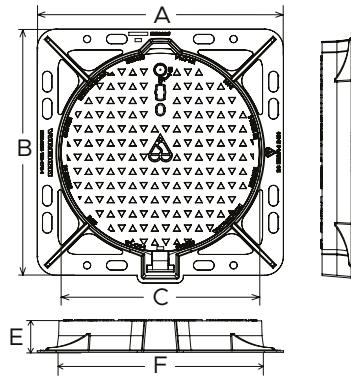


Product Features

- ▶ 70+PSRV tested at top surface of chequer.
- ▶ Enlarged frame corners help to dissipate load minimising bearing pressure.
- ▶ Indexed corners ensure correct orientation first time, every time.
- ▶ Safety keyway prevents accidental disengagement of the lifting key during the handling process.
- ▶ Select products compatible with Clicklift, Armadillo, Gritblocker and Screwlift. See all accessories on page 65.

STOCK CODE	OVERALL FRAME (A x B mm)	CLEAR OPENING (C x D mm)	FRAME DEPTH (E mm)	BASE OPENING (F x G mm)
DMTOD4/6045/KT	750 x 600	600 x 450	100	620 x 470
DMTOD4/6060/KT	760 x 760	600 x 600	100	620 x 620
DMTOD4/6767/KT	830 x 830	675 x 675	100	700 x 700
DMTOD6/6060/KT	760 x 760	600 x 600	150	620 x 620
DMTOD6/6767/KT	830 x 830	675 x 675	150	700 x 700

TRISTAR D400 MANHOLE COVERS - ROUND COVER, SQUARE FRAME

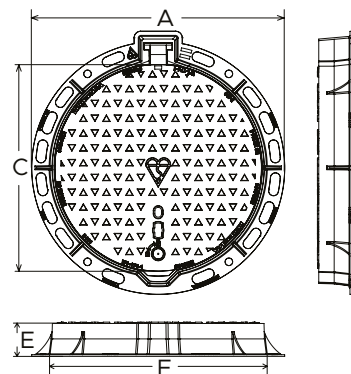


Product Features

- ▶ 70+PSRV tested at top surface of chequer.
- ▶ Safety keyway prevents accidental disengagement of the lifting key during the handling process.
- ▶ Safety stop hinge prevent covers falling once opened.
- ▶ Spring bar low security locking feature.

STOCK CODE	OVERALL FRAME (A x B mm)	CLEAR OPENING (C mm)	FRAME DEPTH (E mm)	BASE OPENING (F mm)
DMS1D4/60D/KTSF	780 x 780	Ø 600	100	Ø 650

TRISTAR D400 MANHOLE COVERS - ROUND



Product Features

- ▶ 70+PSRV tested at top surface of chequer.
- ▶ Safety keyway prevents accidental disengagement of the lifting key during the handling process.
- ▶ Safety stop hinge prevent covers falling once opened.
- ▶ Spring bar low security locking feature.
- ▶ *Compatible with Reducer Ring accessory, p73.

STOCK CODE	OVERALL FRAME (A mm)	CLEAR OPENING (C mm)	FRAME DEPTH (E mm)	BASE OPENING (F mm)
DMS1D4/45D/KT*	Ø 620	Ø 450	100	Ø 500
DMS1D4/60D/KT	Ø 770	Ø 600	100	Ø 650



FORCE™

ULTIMATE DURABILITY

Force™ delivers ultimate durability. With its large textured flange and rounded frame edge ensuring a strong mortar bond and reduced risk of mortar cracking, you can rest assured of its longevity. Hinged with ClearBore™ technology, Force™ offers reliable opening, unaffected by dirt and debris. It really is a force to be reckoned with.



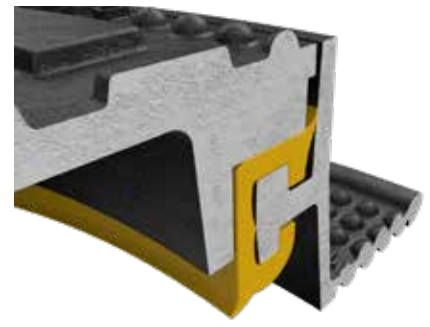
ClearBore™ Hinge

The hinge blocks dirt and debris from entering the mechanism, ensuring a smooth hinge opening every time.



I Beam Technology

I beam technology is built into the cover, dramatically reducing cover seating wear, where the cover can rub against the frame.



Elastomeric Seating Ring

Large, high quality seating ring cushions the load and reduces wear, ensuring a long-life.



Security Lock

Security turnbuckle lock (optional if required) security feature prevents theft and unwanted access.



Clear Opening

610mm clear opening allows covers to be fitted over older 24" chambers ensuring the frame is supported.

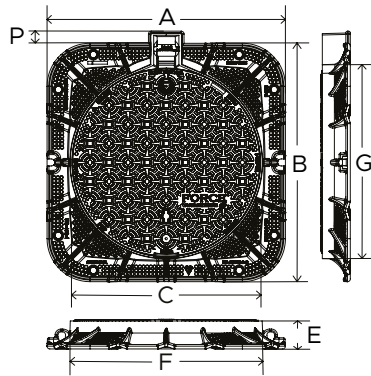
Available Options:

- ▶ Locking
- ▶ Badged (e.g. 'SW', 'FW' etc.)
- ▶ Ventilation Holes
- ▶ Safety Grille
- ▶ Enhanced Anti-Slip Coating

Available Accessories:

- ▶ p72: Gritblocker™
- ▶ p72: Screwlift™
- ▶ p72: BS 7903 lifting keys

FORCE D400 MANHOLE COVERS - SQUARE TO ROUND

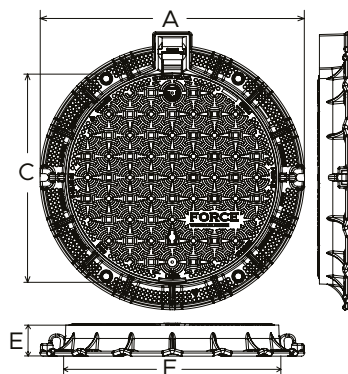


Product Features

- Designed to be lifted by a single person, helping to reduce labour costs.
- Mechanical lifting points & BS7903 frame lifting points are provided.
- Spring bar low security locking feature.
- Anti-flex covers prevent the causes of cover seating wear, eliminating excessive noise and catastrophic failure.
- Concealed hinges prevent debris entering the hinge and limiting its movement.
- Safety keyway prevents accidental disengagement of the lifting key during the handling process.

STOCK CODE	OVERALL FRAME (A x B mm)	CLEAR OPENING (C mm)	FRAME DEPTH (E mm)	BASE OPENING (F x G mm)
DMS1D4/60D/KUSF	850 x 850	Ø 610	100	690 x 690

FORCE D400 MANHOLE COVERS - ROUND



Product Features

- Designed to be lifted by a single person, helping to reduce labour costs.
- Mechanical lifting points & BS7903 frame lifting points are provided.
- Spring bar low security locking feature.
- Anti-flex covers prevent the causes of cover seating wear, eliminating excessive noise and catastrophic failure.
- Concealed hinges prevent debris entering the hinge and limiting its movement.
- Safety keyway prevents accidental disengagement of the lifting key during the handling process.

STOCK CODE	OVERALL FRAME (A x B mm)	CLEAR OPENING (C mm)	FRAME DEPTH (E mm)	BASE OPENING (F mm)
DMS1D4/60D/KU	Ø 850	Ø 610	100	Ø 690



HERCULES™ LEGENDARY SIZE

Our Hercules range has been designed as the ideal solution when a very large manhole cover is required for a D400 Group 4 environment. The products have been designed and manufactured to meet the requirements BS EN 124:2015. Additionally, the covers include features designed to provide both greater operator safety and operational longevity.



70+PSRV tested at top surface of chequer by UKAS accredited 3rd party.



Anti-flex covers prevent the causes of cover seating wear, eliminating excessive noise and catastrophic failure.



Specially designed cover support geometry reduces movement relative to the frame, minimising seating wear.



Enlarged frame corners help to dissipate, load minimising bearing pressure.

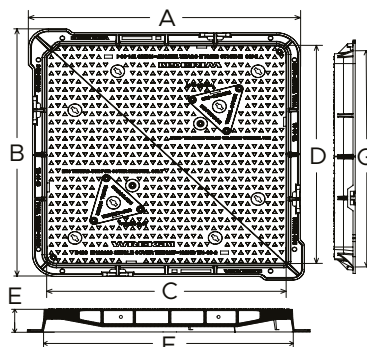
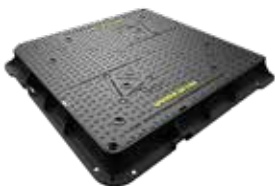


Indexed corners ensure correct orientation first time, every time.



Inspection window allows safe and easy view into chamber.

HERCULES D400 MANHOLE COVERS - RECTANGULAR



Product Features

- ▶ 70+PSRV tested at top surface of chequer.
- ▶ Anti-flex covers prevent the causes of cover seating wear, eliminating excessive noise and catastrophic failure.
- ▶ Specially designed cover support geometry reduces movement relative to the frame, minimising seating wear.
- ▶ Enlarged frame corners help to dissipate load minimising bearing pressure.
- ▶ Indexed corners ensure correct orientation first time, every time.
- ▶ Inspection window allows safe and easy view into chamber.
- ▶ Mechanical lifting points are provided.
- ▶ Safety keyway prevents accidental disengagement of the lifting key during the handling process.

STOCK CODE	OVERALL FRAME (A x B mm)	CLEAR OPENING (C x D mm)	FRAME DEPTH (E mm)	BASE OPENING (F x G mm)
DMTOD6/1212/4	1,385 x 1,385	1,200 x 1,200	150	1,230 x 1,230

VAULT™

SECURITY AS STANDARD

Vault features a stainless steel lock for securing valuable assets like communications equipment. Our hinged Vault range of access covers exceeds BS EN 124:2015 D400 requirements and includes unique safety features, including a sequential opening locking system and stops which fix the covers in a unique, simple to use, upright position for safe and simple operation.



70+PSRV tested at top surface of chequer by UKAS accredited 3rd party.



Captive hinges reduce theft risk whilst allowing easy lifting.



Enlarged frame corners help to dissipate, load minimising bearing pressure.



Indexed corners ensure correct orientation first time, every time.

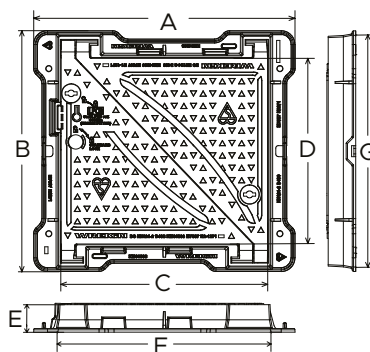


Safety keyway prevents accidental disengagement of the lifting key during the handling process.



Safety-stop hinges prevent covers falling once opened.

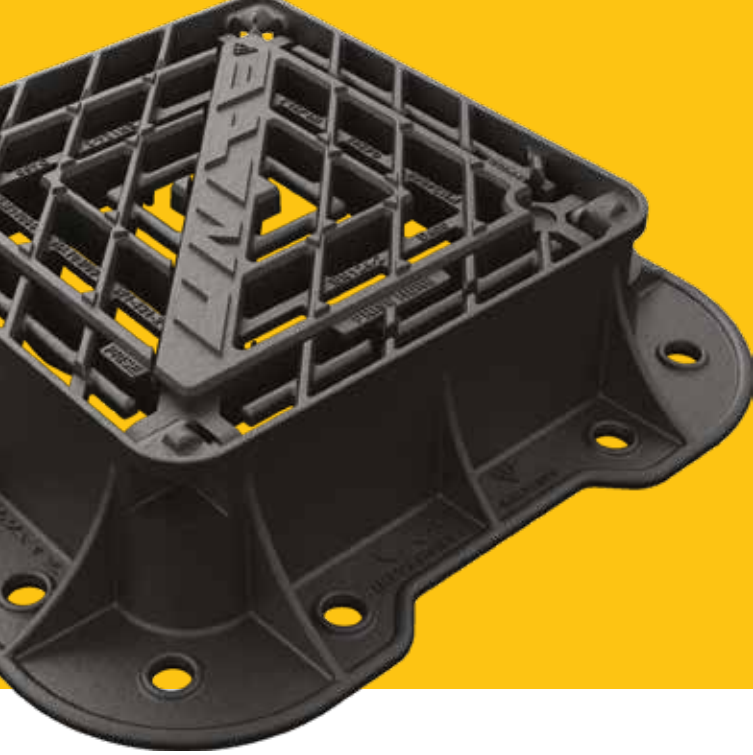
VAULT D400 MANHOLE COVERS - RECTANGULAR



Product Features

- ▶ LPCB series 3 lock.
- ▶ 70+PSRV tested at top surface of chequer.
- ▶ Enlarged frame corners help to dissipate load minimising bearing pressure.
- ▶ Indexed corners ensure correct orientation first time, every time.
- ▶ Sequential cover opening.
- ▶ Safety keyway prevents accidental disengagement of the lifting key during the handling process.
- ▶ Safety-stop hinges prevent covers falling once opened.
- ▶ Mechanical lifting points are provided.

STOCK CODE	OVERALL FRAME (A x B mm)	CLEAR OPENING (C x D mm)	FRAME DEPTH (E mm)	BASE OPENING (F x G mm)
DMH0D4/7567/K	950 x 875	750 x 675	100	775 x 700
DMH0D4/9045/K	1,090 x 650	900 x 450	100	925 x 475
DMH0D4/9060/K	1,090 x 800	900 x 600	100	925 x 625
DMH0D4/1361/K	1,490 x 810	1,300 x 610	100	1,325 x 635
DMH0D4/1383/K	1,490 x 1,050	1,300 x 850	100	1,325 x 875



UNITE™ D400 GULLY GRATES

Our premium Unite D400 gully grate combines new technology with proven features to deliver a super long-life and the lowest whole-life cost of any D400 gully grate.

The inclusion of a lower secondary grid promotes pedestrian and cycle safety whilst disrupting surface water flow to maximise the volume evacuated. The three-way hinge design enables it to be installed in any orientation and optional safety stays resist uncontrolled closing.



Unique beam design provides high strength and an exceptionally long service life.



Enlarged frame corners help to dissipate the load, minimising the forces applied to the foundations.



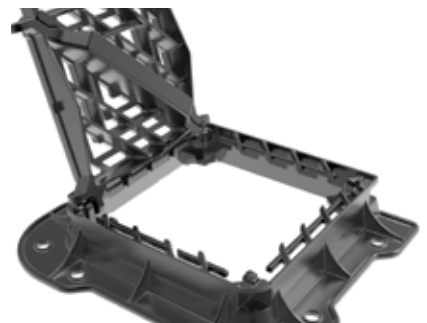
Gully grating can easily be adjusted on site to hinge in 3 directions.



Mechanical lifting points are provided, BS 7903 lifting key slots are also available for manoeuvring the frame.

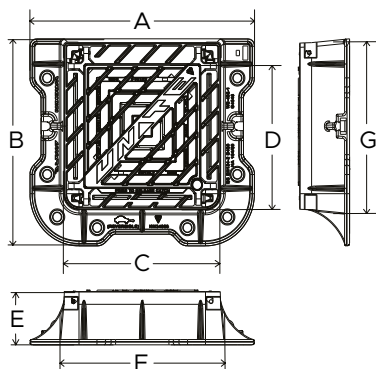


Reversible hinge allows the grating to hinge with the direction of the traffic flow, improving safety.



Safety-stop hinges prevent the grating from falling once opened.

UNITE D400 GULLY GRATES



Product Features

- ▶ Beam in beam design.
- ▶ Specially designed cover support geometry reduces movement relative to the frame, minimising seating wear.
- ▶ Enlarged frame corners help to dissipate load minimising bearing pressure.
- ▶ Hinged in 3 directions – product can fit in any required orientation.
- ▶ Mechanical lifting points are provided.
- ▶ Reversible hinge allows the grating to hinge with the direction of the traffic flow, improving safety.
- ▶ Safety-stop hinges prevent covers falling once opened.
- ▶ Meets CD 534 v0.1.0 flange area requirements & less than 2.1 N/mm² bedding pressure.

STOCK CODE	OVERALL FRAME (A x B mm)	CLEAR OPENING (C x D mm)	FRAME DEPTH (E mm)	BASE OPENING (F x G mm)	WATERWAY AREA (cm ²)	CD 526 CLASSIFICATION
DGHTOD4/4545/KU	670 x 580	450 x 450	100	475 x 475	1,440	Q
DGHTOD6/4545/KU	670 x 580	450 x 450	150	475 x 475	1,440	Q



HIGHWAY® D400 GULLY GRATES

Our Highway Group 3 gully grates are designed and manufactured to meet the enhanced requirements of Highways England's Design Manual for Roads and bridges (DMRB) specification CD 534 which recently replaced HA104/09.

The Highway range of access covers and gully grates conforms to BS EN 124:2015 and also includes patented safety provisions and design features to ensure safe and robust performance.



Captive hinges reduce theft risk whilst allowing easy lifting.



Enlarged frame corners help to dissipate the load, minimising the forces applied to the foundations.



Mechanical lifting points are provided, BS 7903 lifting key slots are also available for manoeuvring the frame.



Reversible hinge allows the grating to hinge with the direction of the traffic flow, improving safety.

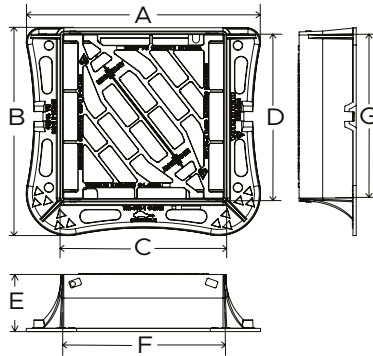
Available Options:

- ▶ Screw locking
- ▶ Enhanced anti-slip coating

Available Accessories:

- ▶ p72: Screwlift™

HIGHWAY D400 GULLY GRATES - 3 FLANGE

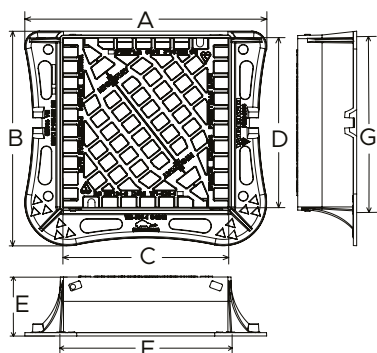


Product Features

- ▶ Captive hinges reduce theft risk whilst allowing easy lifting.
- ▶ Enlarged frame corners help to dissipate load minimising bearing pressure.
- ▶ Mechanical lifting points are provided.
- ▶ Reversible hinge allows the grating to hinge with the direction of the traffic flow, improving safety.
- ▶ Meets CD 534 v0.1.0 flange area requirements & less than 2.1 N/mm² bedding pressure.

STOCK CODE	OVERALL FRAME (A x B mm)	CLEAR OPENING (C x D mm)	FRAME DEPTH (E mm)	BASE OPENING (F x G mm)	WATERWAY AREA (cm ²)	CD 526 CLASSIFICATION
DGHTOD4/4242/KH	615 x 545	425 x 425	100	450 x 450	1,250	R
DGHTOD4/4337/KH	565 x 545	370 x 430	100	390 x 450	1,000	R
DGHTOD4/5035/KH	675 x 445	480 x 320	100	500 x 350	950	R
DGHTOD4/6045/KH	775 x 545	425 x 425	100	600 x 450	1,750	Q
DGHTOD4/6060/KH	775 x 695	580 x 580	100	600 x 600	2,150	P
DGHTOD4/1045/KH	1,175 x 545	980 x 425	100	1,000 x 450	2,750	P
DGHTOD6/4242/KH	615 x 545	425 x 425	150	450 x 450	1,250	R
DGHTOD6/4337/KH	565 x 545	370 x 430	150	390 x 450	1,000	R
DGHTOD6/6045/KH	775 x 545	420 x 420	150	600 x 450	1,750	Q
DGHTOD6/6060/KH	775 x 695	580 x 580	150	600 x 600	2,150	P
DGHTOD6/1045/KH	1,175 x 545	980 x 425	150	1,000 x 450	2,750	P
DGHTOD6/5035/KH	675 x 445	480 x 320	150	500 x 350	950	R

HIGHWAY D400 GULLY GRATES - 3 FLANGE - PEDESTRIAN SAFE

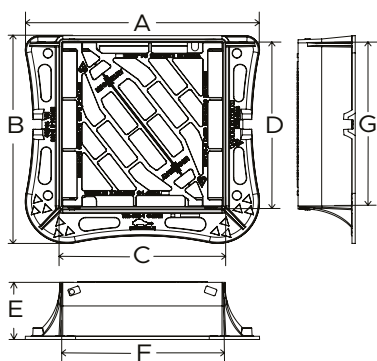


Product Features

- Safe for bikes and pedestrians.
- Captive hinges reduce theft risk whilst allowing easy lifting.
- Enlarged frame corners help to dissipate load minimising bearing pressure.
- Mechanical lifting points are provided.
- Reversible hinge allows the grating to hinge with the direction of the traffic flow, improving safety.
- Meets CD 534 v0.1.0 flange area requirements & less than 2.1 N/mm² bedding pressure.

STOCK CODE	OVERALL FRAME (A x B mm)	CLEAR OPENING (C x D mm)	FRAME DEPTH (E mm)	BASE OPENING (F x G mm)	WATERWAY AREA (cm ²)	CD 526 CLASSIFICATION
DGHTOD4/4545/KHP	615 x 545	425 x 425	100	450 x 450	910	R
DGHTOD6/4242/KHP	615 x 545	425 x 425	150	450 x 450	910	R

HIGHWAY D400 GULLY GRATES - 3 FLANGE - KERB HINGED

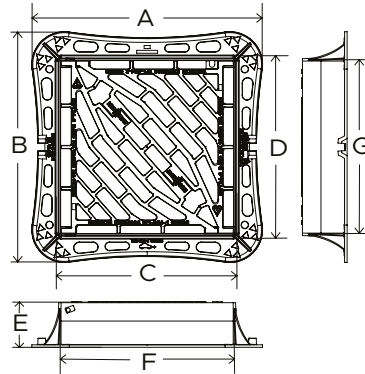


Product Features

- Captive hinges reduce theft risk whilst allowing easy lifting.
- Enlarged frame corners help to dissipate load minimising bearing pressure.
- Mechanical lifting points are provided.
- Reversible hinge allows the grating to hinge with the direction of the traffic flow, improving safety.
- Meets CD 534 v0.1.0 flange area requirements & less than 2.1 N/mm² bedding pressure.

STOCK CODE	OVERALL FRAME (A x B mm)	CLEAR OPENING (C x D mm)	FRAME DEPTH (E mm)	BASE OPENING (F x G mm)	WATERWAY AREA (cm ²)	CD 526 CLASSIFICATION
DGHTOD6/4545/KHK	625 x 535	410 x 430	150	450 x 440	1,250	R

HIGHWAY D400 GULLY GRATES - 4 FLANGE

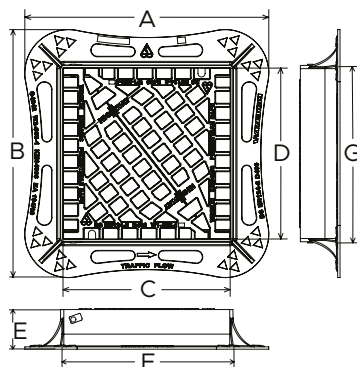


Product Features

- ▶ Captive hinges reduce theft risk whilst allowing easy lifting.
- ▶ Enlarged frame corners help to dissipate load minimising bearing pressure.
- ▶ Mechanical lifting points are provided.
- ▶ Meets CD 534 v0.1.0 flange area requirements & less than 2.1 N/mm² bedding pressure.

STOCK CODE	OVERALL FRAME (A x B mm)	CLEAR OPENING (C x D mm)	FRAME DEPTH (E mm)	BASE OPENING (F x G mm)	WATERWAY AREA (cm ²)	CD 526 CLASSIFICATION
DGHTOD4/4242/KH4F	625 x 615	425 x 425	100	450 x 450	1,250	R
DGHTOD4/4337/KH4F	625 x 565	430 x 370	100	450 x 390	1,000	R
DGHTOD4/6060/KH4F	775 x 775	580 x 580	100	600 x 600	2,150	P
DGHTOD4/1045/KH4F	1,175 x 625	980 x 425	100	1,000 x 450	2,750	P
DGHTOD4/6045/KH4F	775 x 625	425 x 425	100	600 x 450	1,750	Q
DGHTOD6/4242/KH4F	625 x 615	425 x 425	150	450 x 450	1,250	R
DGHTOD6/4337/KH4F	625 x 565	430 x 370	150	450 x 390	1,000	R
DGHTOD6/6060/KH4F	775 x 775	580 x 580	150	600 x 600	2,150	P
DGHTOD6/1045/KH4F	1,175 x 625	980 x 425	150	1,000 x 450	2,750	P
DGHTOD6/6045/KH4F	775 x 625	425 x 425	150	600 x 450	1,750	Q

HIGHWAY D400 GULLY GRATES - 4 FLANGE - PEDESTRIAN SAFE

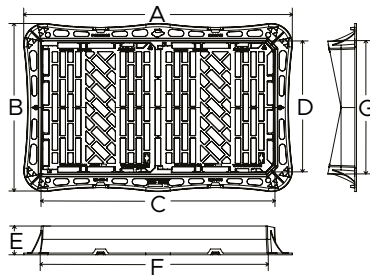


Product Features

- ▶ Safe for bikes and pedestrians.
- ▶ Captive hinges reduce theft risk whilst allowing easy lifting.
- ▶ Enlarged frame corners help to dissipate load minimising bearing pressure.
- ▶ Mechanical lifting points are provided.
- ▶ Meets CD 534 v0.1.0 flange area requirements & less than 2.1 N/mm² bedding pressure.

STOCK CODE	OVERALL FRAME (A x B mm)	CLEAR OPENING (C x D mm)	FRAME DEPTH (E mm)	BASE OPENING (F x G mm)	WATERWAY AREA (cm ²)	CD 526 CLASSIFICATION
DGHTOD4/4242/KHP4F	625 x 615	425 x 425	100	450 x 450	910	R
DGHTOD6/4242/KHP4F	625 x 615	425 x 425	150	450 x 450	910	R

HIGHWAY D400 GULLY GRATES - V

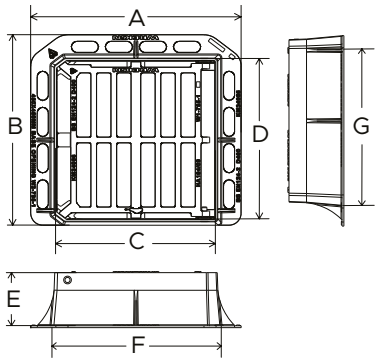


Product Features

- ▶ Enlarged frame corners help to dissipate load minimising bearing pressure.
- ▶ Mechanical lifting points are provided.
- ▶ Spring bar low security locking feature.
- ▶ Meets CD 534 v0.1.0 flange area requirements & less than 2.1 N/mm² bedding pressure.

STOCK CODE	OVERALL FRAME (A x B mm)	CLEAR OPENING (C x D mm)	FRAME DEPTH (E mm)	BASE OPENING (F x G mm)	WATERWAY AREA (cm ²)	CD 526 CLASSIFICATION
DGHVOD6/6060/KH	800 x 800	600 x 600	150	625 x 625	1,950	P
DGHVOD6/6712/KH	1,405 x 880	1,205 x 675	150	1,230 x 705	4,550	P
DGHVOD6/9090/KH	1,100 x 1,100	900 x 900	150	925 x 925	5,100	P
DGHVOD8/1267/KH	1,405 x 880	1,200 x 675	200	1,230 x 705	4,550	P

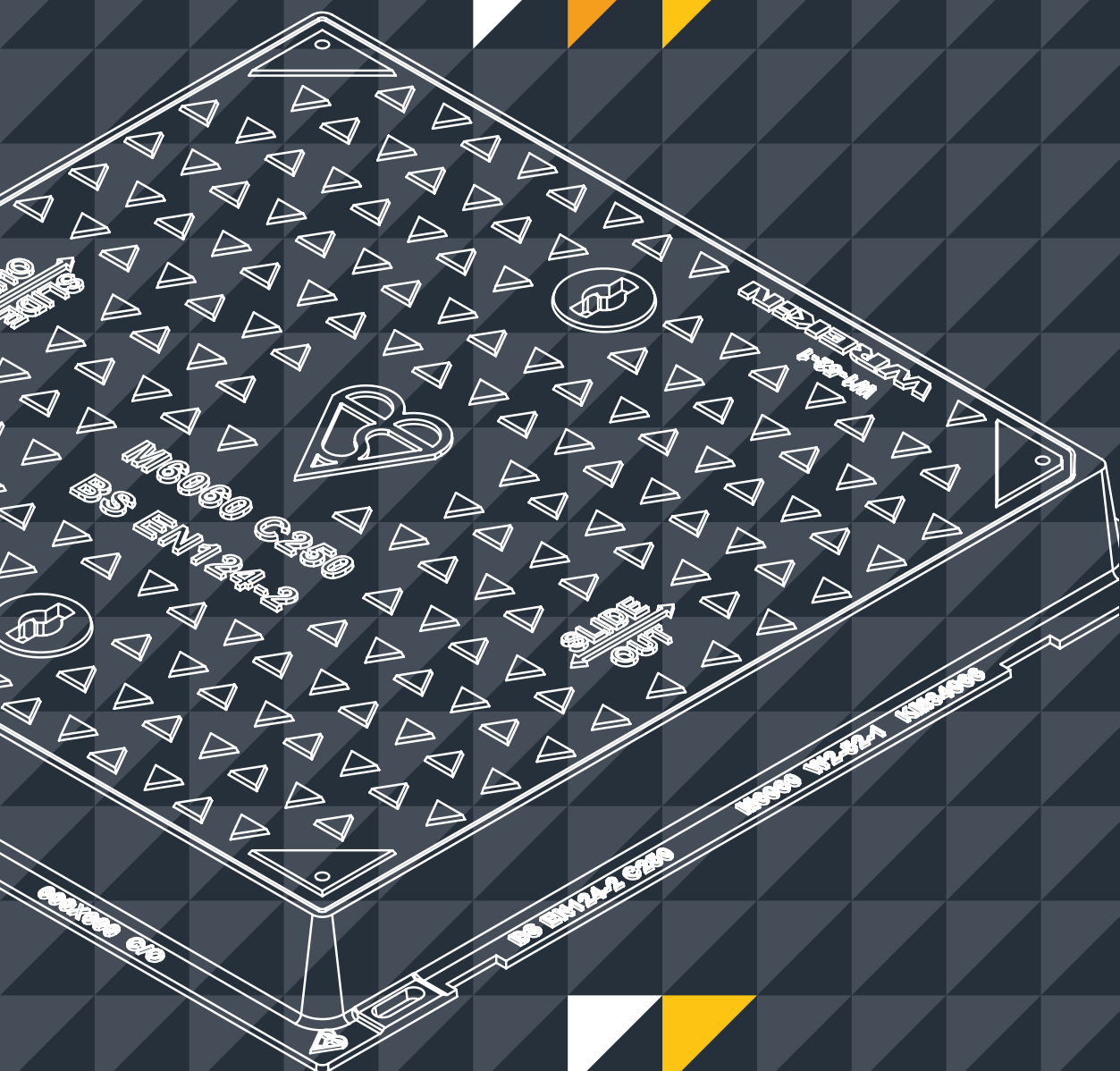
TRISTAR D400 GULLY GRATES



Product Features

- ▶ Captive hinges reduce theft risk whilst allowing easy lifting.
- ▶ Compatible with Armadillo Gully Grate Protector Shell - p68.
- ▶ * Not compatible with CD534.

STOCK CODE	OVERALL FRAME (A x B mm)	CLEAR OPENING (C x D mm)	FRAME DEPTH (E mm)	BASE OPENING (F x G mm)	WATERWAY AREA (cm ²)	CD 526 CLASSIFICATION
DGH0D4/3633/KT*	506 x 425	360 x 335	100	380 x 355	750	S
DGH0D4/4337/KT	580 x 465	430 x 370	100	455 x 390	1,050	R
DGH0D4/4545/KT	575 x 520	430 x 430	100	450 x 450	1,250	R
DGH0D6/4337/KT	575 x 465	430 x 370	150	450 x 390	1,050	R
DGH0D6/4545/KT	575 x 520	430 x 430	150	450 x 450	1,250	R





C250 CONTENTS

Manhole covers and gratings capable of withstanding a 25 tonne test load.
For installation no more than 500mm from the kerb face into the carriageway.

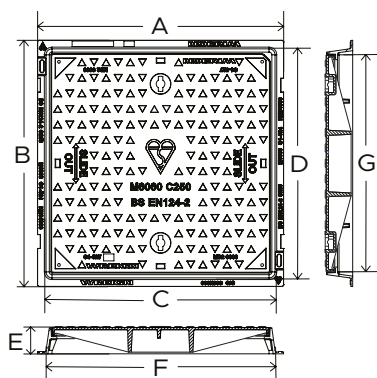
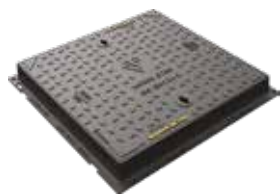
Manhole Covers

Safeseal 48

Gully Grates

Tristar 49

SAFESEAL C250 MANHOLE COVERS - RECTANGULAR

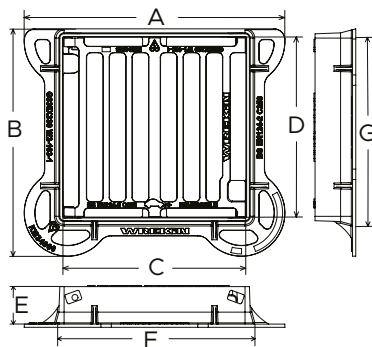


Product Features

- ▶ 70+PSRV tested at top surface of chequer.
- ▶ Indexed corners ensure correct orientation first time, every time.
- ▶ Labyrinth seal helps to prevent odour escapes and water ingress.
- ▶ Safety keyway prevents accidental disengagement of the lifting key during the handling process.

STOCK CODE	OVERALL FRAME (A x B mm)	CLEAR OPENING (C x D mm)	FRAME DEPTH (E mm)	BASE OPENING (F x G mm)
DMS1C3/4545/K	550 x 550	450 x 450	75	490 x 490
DMS1C3/6045/K	710 x 560	600 x 450	75	650 x 500
DMS1C3/6060/K	710 x 710	600 x 600	75	650 x 650
DMS1C3/7560/K	860 x 710	750 x 600	75	800 x 650
DMS1C3/9060/K	1,010 x 710	900 x 600	75	950 x 650

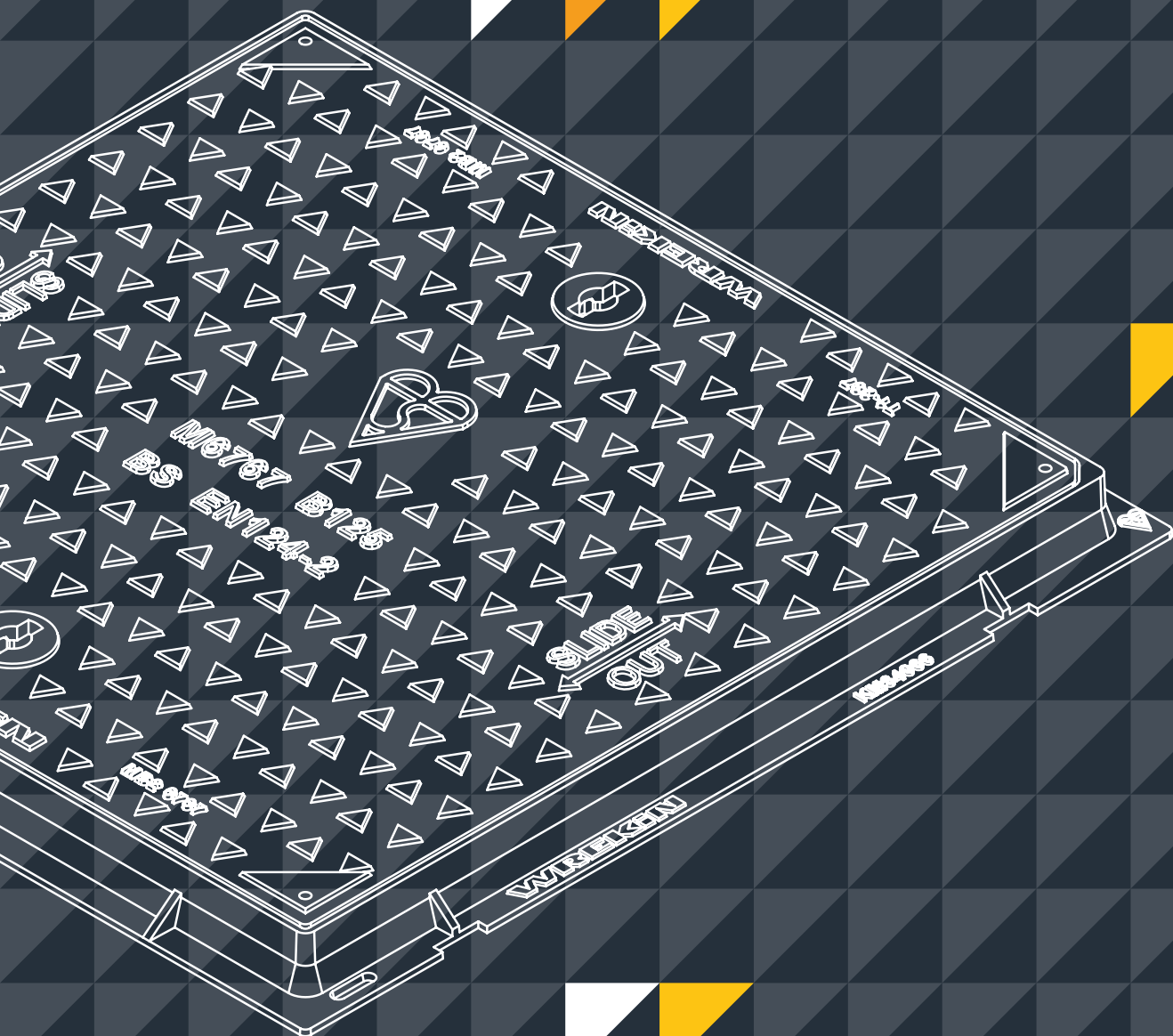
TRISTAR C250 GULLY GRATES - HINGED

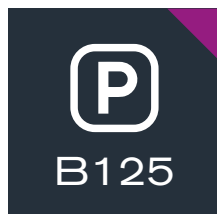


Product Features

- ▶ BS EN 124:2015 C250 Group 3 gully gratings are designed to provide optimum strength whilst maximising the available drainage area.
- ▶ Incorporate as standard a pedestrianised grid and locking feature
- ▶ Captive hinges reduce risk of theft while allowing easy lifting for gully cleaning.

STOCK CODE	OVERALL FRAME (A x B mm)	CLEAR OPENING (C x D mm)	FRAME DEPTH (E mm)	BASE OPENING (F x G mm)	WATERWAY AREA (cm ²)	CD 526 CLASSIFICATION
DGH0C3/3832/K1	545 x 425	385 x 320	75	410 x 350	735	S
DGH0C3/3333/K	480 x 420	335 x 330	75	355 x 350	825	S
DGH0C4/3931/K	590 x 520	390 x 315	100	415 x 340	735	S





B125 CONTENTS

Manhole covers and gratings capable of withstanding a 12.5 tonne test load.

For use in footways, pedestrian areas and comparable areas such as car parks or car decks.

Manhole Covers

Safeseal

52

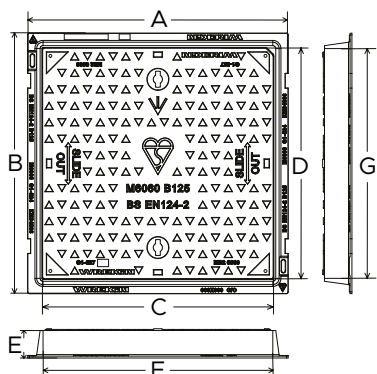
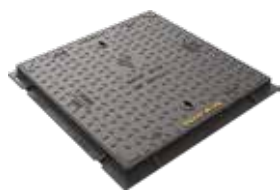
Gully Grates

Tristar

54



SAFESEAL B1 25 MANHOLE COVERS - RECTANGULAR

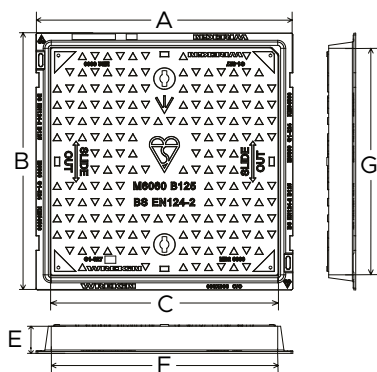


Product Features

- ▶ * 70+PSRV tested at top surface of chequer.
- ▶ Indexed corners ensure correct orientation first time, every time.
- ▶ Labyrinth seal helps to prevent odour escapes and water ingress.
- ▶ Safety keyway prevents accidental disengagement of the lifting key during the handling process.

STOCK CODE	OVERALL FRAME (A x B mm)	CLEAR OPENING (C x D mm)	FRAME DEPTH (E mm)	BASE OPENING (F x G mm)
DMS1B2/3030/K	400 x 400	300 x 300	40	340 x 340
DMS1B2/4545/K *	550 x 550	450 x 450	40	490 x 490
DMS1B3/4545/K *	550 x 550	450 x 450	75	490 x 490
DMS1B2/6045/K *	690 x 530	600 x 450	40	635 x 480
DMS1B3/6045/K *	710 x 560	600 x 450	75	650 x 500
DMS1B2/6060/K *	690 x 690	600 x 600	40	635 x 635
DMS1B3/6060/K *	710 x 710	600 x 600	75	650 x 650
DMS1B2/6767/K *	790 x 790	675 x 675	50	735 x 735
DMS1B2/7560/K *	860 x 710	750 x 600	40	800 x 650
DMS1B3/7560/K *	860 x 710	760 x 600	75	800 x 650
DMS1B2/7575/K *	850 x 850	750 x 750	50	790 x 790
DMS1B2/9060/K *	1,010 x 710	900 x 600	40	950 x 650
DMS1B3/9060/K *	1,010 x 710	900 x 600	75	950 x 650
DMS1B3/9090/K *	1,020 x 1,020	900 x 900	75	960 x 960

SAFESEAL B1 25 MANHOLE COVERS - SQUARE TO ROUND

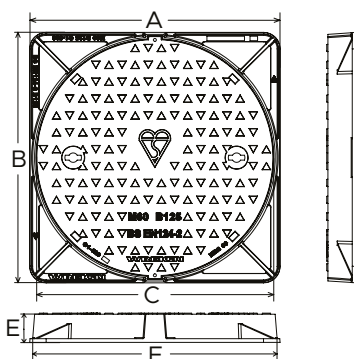


Product Features

- ▶ 70+PSRV tested at top surface of chequer.
- ▶ Indexed corners ensure correct orientation first time, every time.
- ▶ Labyrinth seal helps to prevent odour escapes and water ingress.
- ▶ Safety keyway prevents accidental disengagement of the lifting key during the handling process.
- ▶ *Compatible with Reducer Ring accessory, p73.

STOCK CODE	OVERALL FRAME (A x B mm)	CLEAR OPENING (C mm)	FRAME DEPTH (E mm)	BASE OPENING (F x G mm)
DMS1B2/45D/KSQR*	550 x 550	Ø 450	40	490 x 490

SAFESEAL B125 MANHOLE COVERS - ROUND COVER, SQUARE FRAME

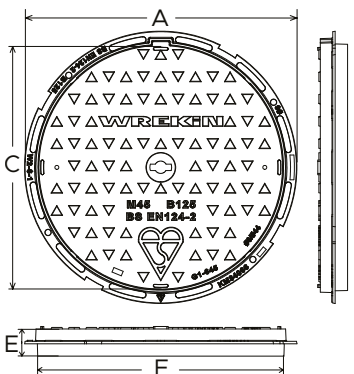


Product Features

- ▶ 70+PSRV tested at top surface of chequer.
- ▶ Indexed corners ensure correct orientation first time, every time.
- ▶ Labyrinth seal helps to prevent odour escapes and water ingress.
- ▶ Safety keyway prevents accidental disengagement of the lifting key during the handling process.

STOCK CODE	OVERALL FRAME (A x B mm)	CLEAR OPENING (C x D mm)	FRAME DEPTH (E mm)	BASE OPENING (F mm)
DMS1B2/60D/K	680 x 680	Ø 600	40	Ø 650
DMS1B3/60D/K	670 x 670	Ø 600	75	Ø 640

SAFESEAL B125 MANHOLE COVERS - ROUND

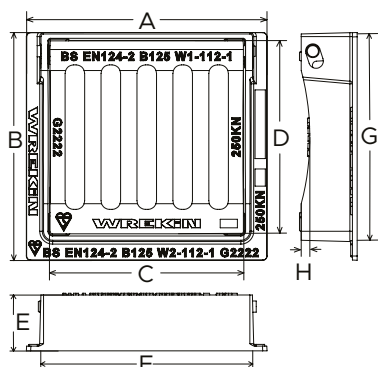


Product Features

- ▶ * 70+PSRV tested at top surface of chequer.
- ▶ Indexed corners ensure correct orientation first time, every time.
- ▶ Labyrinth seal helps to prevent odour escapes and water ingress.
- ▶ Safety keyway prevents accidental disengagement of the lifting key during the handling process.
- ▶ **Compatible with Reducer Ring accessory, p73.

STOCK CODE	OVERALL FRAME (A x B mm)	CLEAR OPENING (C mm)	FRAME DEPTH (E mm)	BASE OPENING (F mm)
DMS1B2/25D/K	Ø 340	Ø 250	30	Ø 280
DMS1B2/45D * **	Ø 550	Ø 450	35	Ø 495

TRISTAR B125 GULLY GRATES - HINGED, DISHED

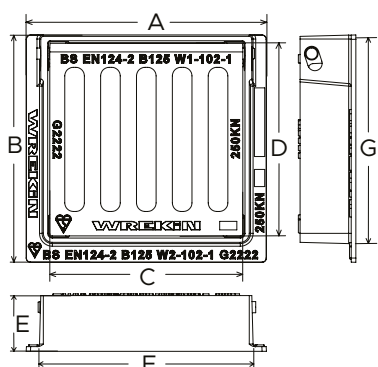


Product Features

- ▶ Designed with anti-theft in mind alongside providing optimum strength whilst maximising the available drainage area.
- ▶ The captive hinge allows easy opening for maintenance.
- ▶ Comply with BS EN 124:2015.

STOCK CODE	OVERALL FRAME (A x B mm)	CLEAR OPENING (C x D mm)	FRAME DEPTH (E mm)	BASE OPENING (F x G mm)	WATERWAY AREA (cm ²)	DISHED DEPTH (H mm)
DGH0B3/2222	280 x 265	225 x 225	65	225 x 225	210	10
DGH0B3/3030	355 x 345	300 x 300	75	300 x 300	375	15

TRISTAR B125 GULLY GRATES - HINGED



Product Features

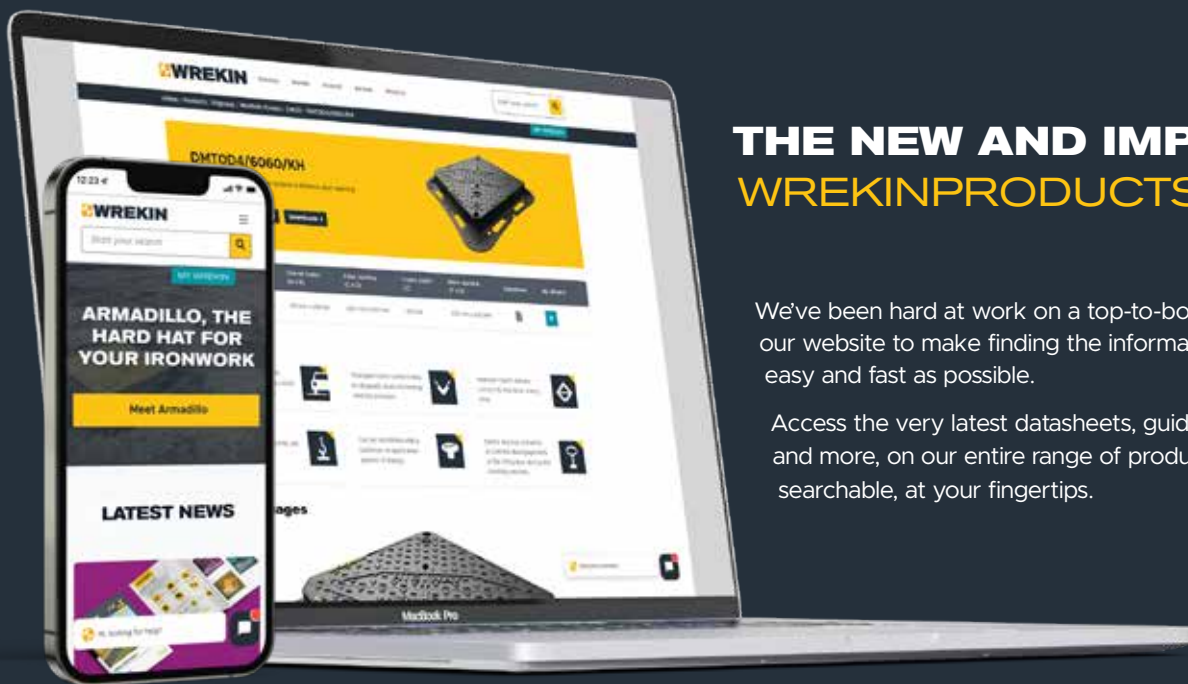
- ▶ Designed with anti-theft in mind alongside providing optimum strength whilst maximising the available drainage area.
- ▶ The captive hinge allows easy opening for maintenance.
- ▶ Comply with BS EN 124:2015.
- ▶ References with '/F' denote a flat top.

STOCK CODE	OVERALL FRAME (A x B mm)	CLEAR OPENING (C x D mm)	FRAME DEPTH (E mm)	BASE OPENING (F x G mm)	WATERWAY AREA (cm ²)
DGH0B3/2222/F	280 x 265	225 x 225	65	225 x 225	210
DGH0B3/3030/F	355 x 345	300 x 300	75	300 x 300	375

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MY WREKIN

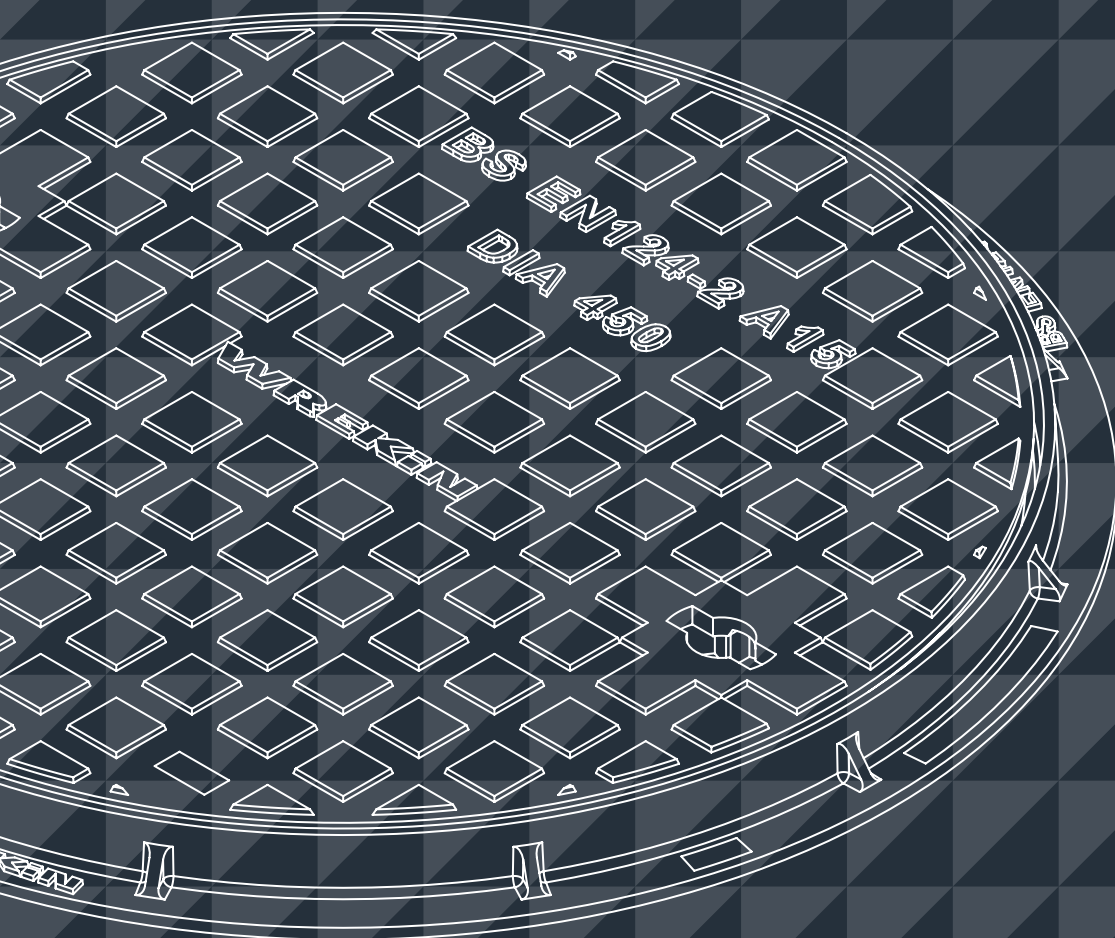
My Wrekin

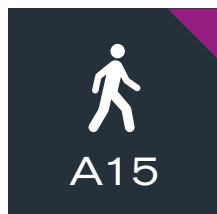
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Got a burning question for us? Speak directly to a member of our team with our live chat feature, and get the answers you need.







A15 CONTENTS

Manhole covers and gratings capable of withstanding a 1.5 tonne test load.
For use in areas which can only be used by pedestrians and cyclists.

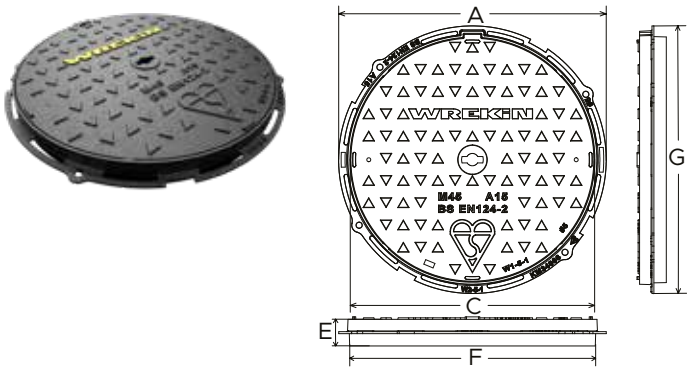
Manhole Covers

Safeseal

58



SAFESEAL A15 MANHOLE COVERS - ROUND



Product Features

- ▶ Labyrinth seal helps to prevent odour escapes and water ingress.
- ▶ Indexed covers ensure correct fit first time, every time.
- ▶ 70+PSRV tested at top surface of chequer.
- ▶ Safety keyway prevents accidental disengagement of the lifting key during the handling process.
- ▶ *Compatible with Reducer Ring accessory, p73.

STOCK CODE	OVERALL FRAME (A mm)	CLEAR OPENING (C mm)	FRAME DEPTH (E mm)	BASE OPENING (F mm)
DMS1A1/45D/K	Ø 540	Ø 450	30	Ø 450
DMS1A2/45D/K	Ø 540	Ø 450	30	Ø 490

STEEL PRODUCTS

BESPOKE STEEL SOLUTIONS

We offer a comprehensive range of bespoke steel products and services. We work with you to understand your project requirements and are happy to attend site surveys and provide bespoke CAD design services where required.

Our range includes steel access covers, headwall products including trash screens, raked gratings, hand railing systems and sewers for adoption compliant safety grilles, to ladders, steps iron, safety chains and signs.

Many of our products are manufactured from rolled steel sections which are hot dip galvanised to BS EN ISO 1461 following fabrication (as an alternative to hot dip galvanising products can be supplied stainless steel). Minimum zinc coating thickness under the standard is 85µm, this can be increased to 100µm or 140µm for extended life expectancy. As an alternative to hot dip galvanising products can be supplied stainless steel.



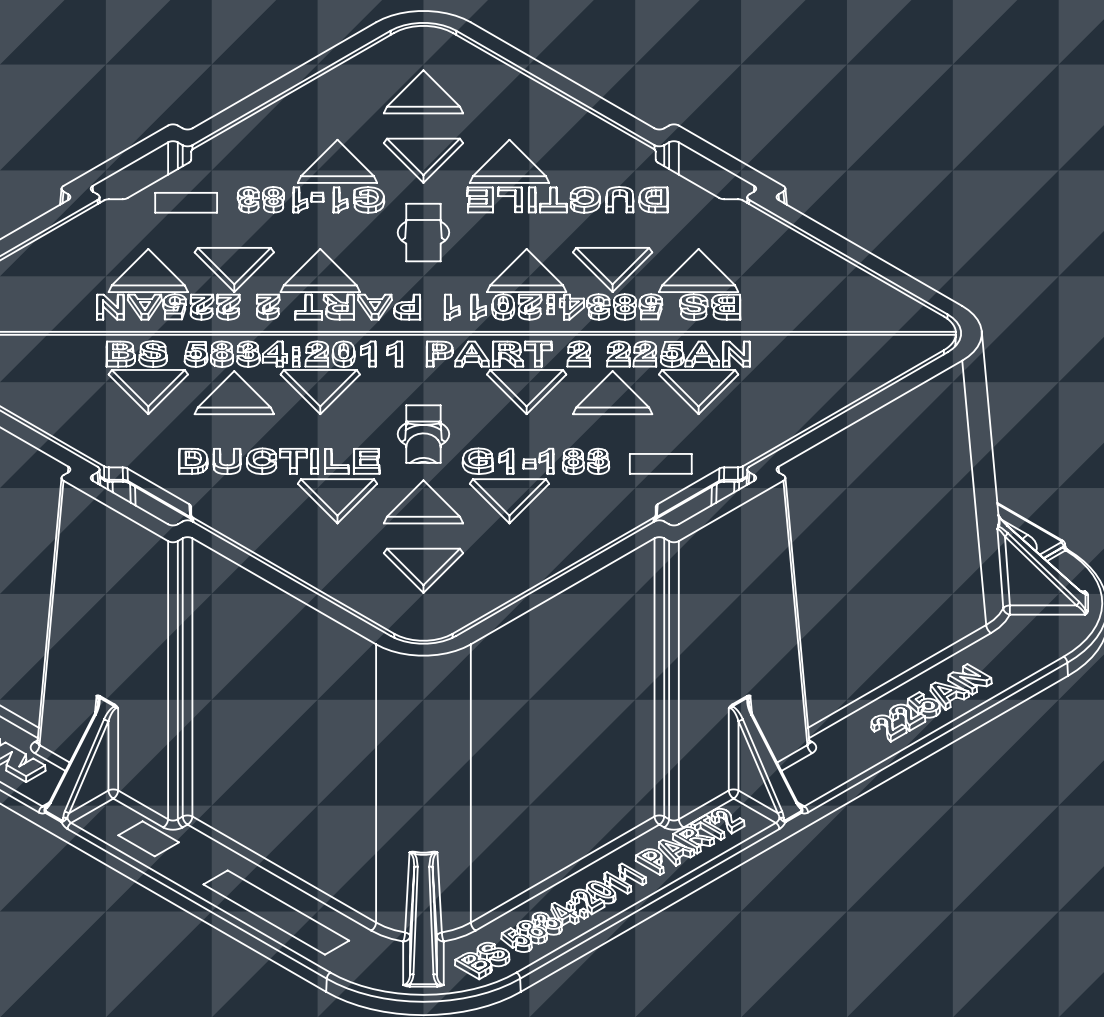
Sewers For Adoption Grilles

Raked Gratings And Trash Screens

Ladders And Step Irons

Handrails

Safety Chains And Safety Signs



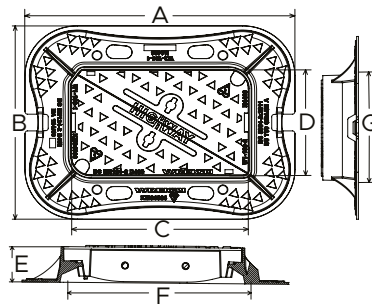
SURFACE BOXES & KERB UNITS

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	Kerb Units	
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	Gully Chute Connector	63



HIGHWAY GRADE A SURFACE BOXES



Product Features

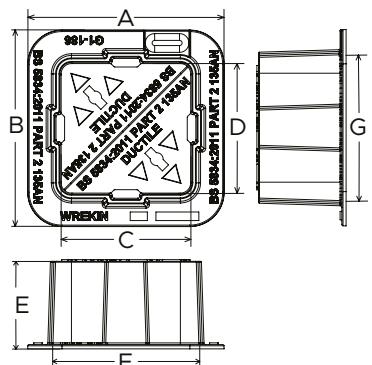
- ▶ Enlarged frame corners help to dissipate load minimising bearing pressure.
- ▶ Indexed covers ensure correct fit first time, every time.
- ▶ Mechanical lifting points are provided.
- ▶ Safety keyway prevents accidental disengagement of the lifting key during the handling process.

STOCK CODE	OVERALL FRAME (A x B mm)	CLEAR OPENING (C x D mm)	FRAME DEPTH (E mm)	BASE OPENING (F x G mm)
DBTOD4/4428/KH	680 x 515	445 x 280	100	465 x 300

TRISTAR GRADE A SURFACE BOXES



Image is illustrative only,
other variants may not look
like this



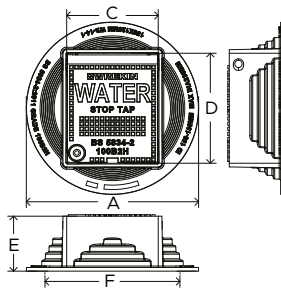
Product Features

- ▶ Manufactured from highly durable ductile iron, which offers high strength and performance in robust enclosures.
- ▶ BS 5834 Grade A heavy-duty, double triangular surface boxes and a D400 Fire Hydrant surface box.
- ▶ Products ending in /KT are kitemarked & conform to BS EN 124 & BS 750.



STOCK CODE	TYPE OF COVER	OVERALL FRAME (A x B mm)	CLEAR OPENING (C x D mm)	FRAME DEPTH (E mm)	BASE OPENING (F x G mm)
DBH0A3/185D/BD3	Hinged Cover	270 x 270	Ø 185	75	220 x 220
DBT0A4/1515	Double Triangular Cover	230 x 230	150 x 150	100	155 x 155
DBT0A4/2222	Double Triangular Cover	305 x 305	225 x 225	100	235 x 235
DBT0A4/3030	Double Triangular Cover	380 x 380	300 x 300	100	305 x 305
DBT0A6/1515	Double Triangular Cover	260 x 260	150 x 150	150	160 x 160
DBS0A5/3823/KT	Square Covers	490 x 345	380 x 230	125	390 x 240
DBS0A4/1010	Square Covers	195 x 195	105 x 105	100	150 x 150
DBS0A6/1010	Square Covers	195 x 195	105 x 105	150	150 x 150

TRISTAR GRADE B SURFACE BOX

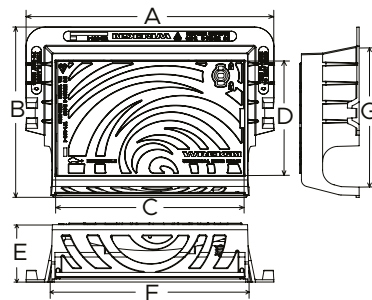


Product Features

- ▶ High durability ductile iron to ensure long term service life.
- ▶ Provide excellent grip thanks to surface pattern.
- ▶ Robust and substantially tougher than plastic alternatives.
- ▶ Easy opening with a prising tool
- ▶ Captive hinges reduce risk of theft and allow easy access for cleaning.
- ▶ The distinctive frame, with stepped recesses is designed to engage with a selection of common pipe diameters.
- ▶ BS 5834 Grade B surface box for use in areas which vehicles would have occasional access

STOCK CODE	OVERALL FRAME (A mm)	CLEAR OPENING (C x D mm)	FRAME HEIGHT (E mm)	BASE OPENING (F mm)
DBHOB3/1311	Ø 210	110 x 130	75	Ø 155
DBHOB3/1512	Ø 235	125 x 150	75	Ø 185
DBHOB3/1515	Ø 250	150 x 150	75	Ø 205

H2GO

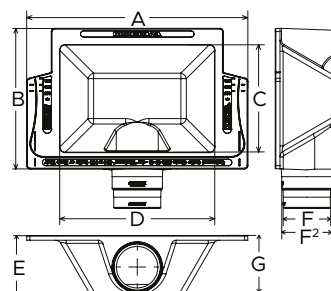


Product Features

- ▶ Captive hinges reduce theft risk whilst allowing easy lifting.
- ▶ BS7903 profiled mechanical lifting points are provided.
- ▶ Reversible hinge allows the grating to hinge with the direction of the traffic flow, improving safety.
- ▶ Lockable.
- ▶ Safety keyway prevents accidental disengagement of the lifting key during the handling process.

STOCK CODE	OVERALL FRAME (A x B mm)	CLEAR OPENING (C x D mm)	FRAME DEPTH (E mm)	BASE OPENING (F x G mm)
DGK115/HB/KG	645 x 445	440 x 305	150	530 x 370

GULLY CHUTE CONNECTOR



Product Features

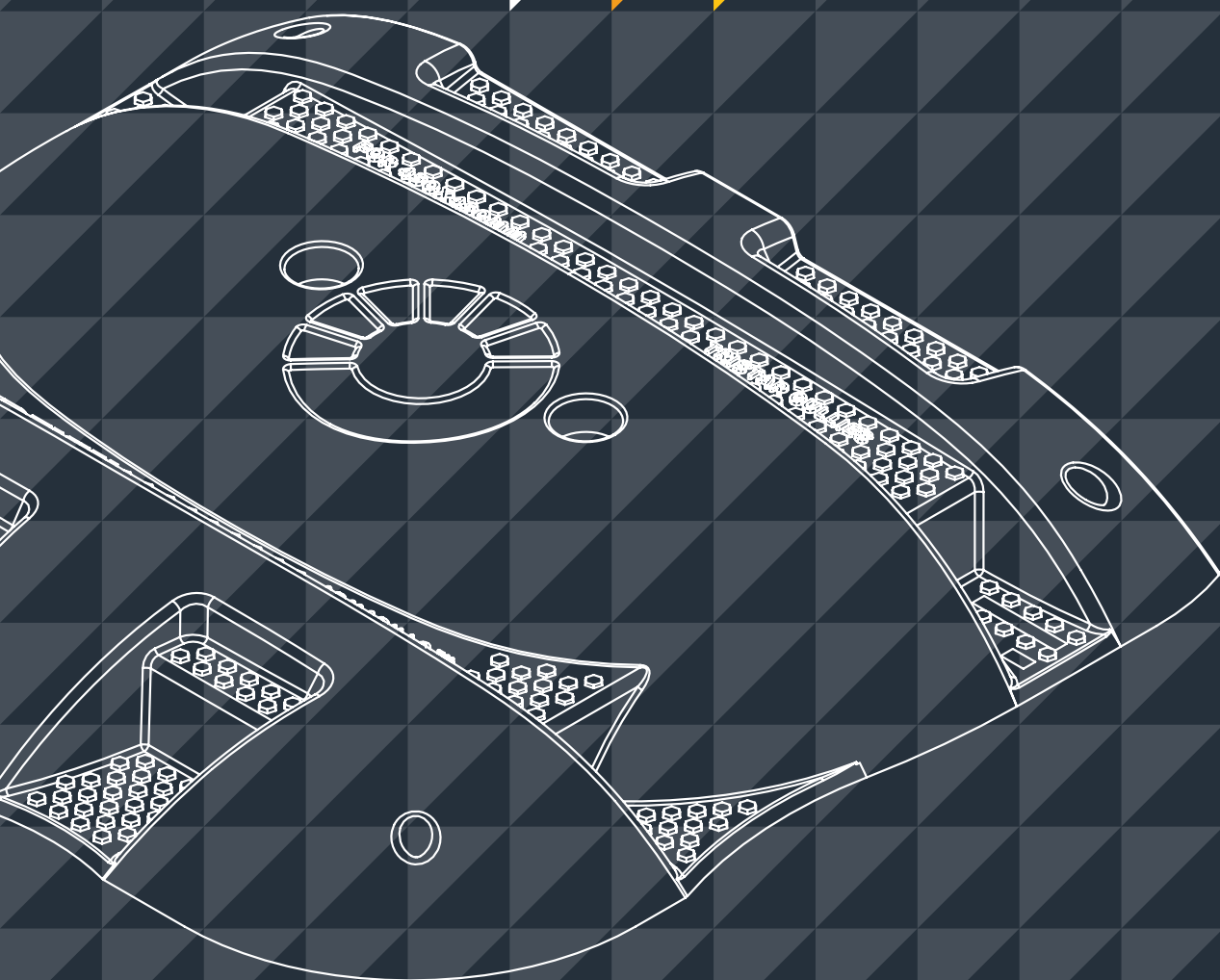
Ideal where gully grates are offset to gully pots or where direct surface run off is required, Wrekin's high strength gully chute connector is designed to fix below a BS EN 124 500mm x 350mm gully grate or kerb mounted gully unit (above) to act as a primary catchment chamber.

Compatible products

DGHTOD4/5035/KH - Highway D400 3 flange gully grate clear opening 480mm x 320mm clear opening with 100mm frame depth

DGK115/HB/KG - H2Go D400 kerb unit 440mm x 305mm clear opening with 150mm frame depth

STOCK CODE	OVERALL FRAME (A x B mm)	CLEAR OPENING (C x D mm)	DEPTH (E mm)	SPIGOT O/D (F mm)	FRAME TOP TO SPIGOT INVERT DEPTH (G mm)
K1GCC/050035	700 x 445	490 x 340	190	150/160	165



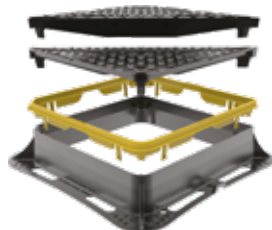
ACCESSORIES & INNOVATIONS

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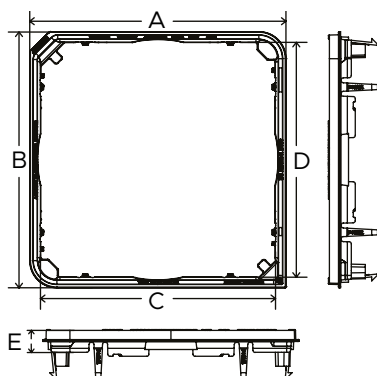
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CLICKLIFT™



*Highlighted in yellow



Product Features

- ▶ Raises Tristar & Highway D400 manhole covers to suit the final surface level.
- ▶ Four fixed raising heights; 30, 40, 50 & 60mm.
- ▶ No special tools or skill required for installation.
- ▶ Significantly reduces time taken to raise ironwork.

STOCK CODE	OVERALL FRAME (A x B mm)	CLEAR OPENING (C x D mm)	FRAME DEPTH (E mm)
CLICKLIFT6030	640 x 640	600 x 600	30
CLICKLIFT6040	640 x 640	600 x 600	40
CLICKLIFT6050	640 x 640	600 x 600	50
CLICKLIFT6060	640 x 640	600 x 600	60
CLICKLIFT6730	715 x 715	675 x 675	30
CLICKLIFT6740	715 x 715	675 x 675	40
CLICKLIFT6750	715 x 715	675 x 675	50
CLICKLIFT6760	715 x 715	675 x 675	60

CLICKLIFT COMPATIBILITY CHART

STOCK CODE	SIZE (mm)	COMPATIBLE PRODUCT (TRISTAR)		COMPATIBLE PRODUCT (HIGHWAY)	
		100mm depth	150mm depth	100mm depth	150mm depth
CLICKLIFT6030	600 x 600 x 30	DMTOD4/6060/KT	DMTOD6/6060/KT	DMTOD4/6060/KH	DMTOD6/6060/KH
CLICKLIFT6040	600 x 600 x 40				
CLICKLIFT6050	675 x 675 x 50				
CLICKLIFT6060	675 x 675 x 60				
CLICKLIFT6730	600 x 600 x 30	DMTOD4/6767/KT	DMTOD6/6767/KT	DMTOD4/6767/KH	DMTOD6/6767/KH
CLICKLIFT6740	600 x 600 x 40				
CLICKLIFT6750	675 x 675 x 50				
CLICKLIFT6760	675 x 675 x 60				

SUCCESS STORY

CLICKLIFT

Guild Homes (Tayside) Ltd.

ClickLift has proven to be a huge success, after being installed as part of a £50m housing development in north east Scotland.

The developers, family-run Guild Homes (Tayside) Ltd, have been so impressed that they have demonstrated the product to construction colleagues - and intend to use it in further developments.

Robin Guild, operations director of the Forfar-based firm, which he runs with his brother Mark, said: "Everyone thought it was a good product. We even had four or five different people involved in construction who came to see it and all were impressed."



Robin continued: "We no longer have to cut round and break out manhole covers, build the frames and covers up to finished level and then patch the tar around it. All in all, we are minimising the introduction of a potential weak spot in the tar and saving massively on labour – the process is so quick and simple."

"The product gives you confidence because of how tightly it clicks in and remains solid and secure, even when driven over by the tar wagons and paving machine."

In the early stages of a housing development, the manhole covers and frames are set flush with the top of the binder layer. The use of ClickLift eliminates the resources needed to break out and build up these manhole frames once the final road surface is to be laid.

Simon Turner, commercial director at Wrekin, said: "With ClickLift, the original cover and frame are installed at the finished binder layer level and then, prior to the finished surface layer being applied, the manhole cover is simply and quickly raised with a ClickLift frame extender.

Guild Homes introduced ClickLift to its award-winning Strathmore Fields development of 236 homes on Kirriemuir Road, Forfar. In the first and second phases, with 122 properties already occupied, they raised 45 covers using ClickLift. Phase three is under construction, with phase four due to be ready by the end of 2023.



As a former supplier to us in a previous career, Robin told Simon about an idea he'd had for a product to prevent the issue of mud penetrating manhole covers and ultimately blocking the drains.

Robin added: "While we were talking, Simon told me about ClickLift and I was immediately interested. Knowing the work involved in lifting ironwork, I was keen to give it a trial. We approached Scottish Water and our local roads authority, which adopts the new roads once complete, and both were happy for us to trial it."

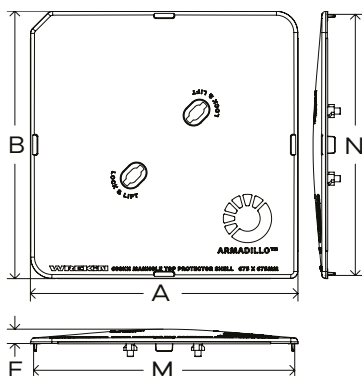
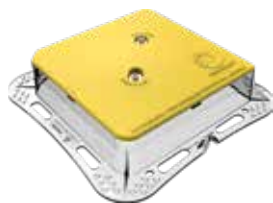
"As a company, we believe in doing things properly and not cutting corners. We use quality components, and our aim is to finish everything to a standard that we would be happy to live with ourselves, and that includes the quality of the manhole covers and frames that we use."

"It's such a simple idea that begs the question why it had never been thought of before. I think that within two or three years there will be large numbers of people using ClickLift. It almost halves your cost and takes a fraction of the time to use when compared to the traditional method of raising ironwork."

"We initially ordered 20 ClickLift frames but, as soon as we realised how good they were to use, we increased our order to 50. The system has worked extremely well for us and we were impressed with how much it reduced costs and saved time."

Robin Guild
Operations Director, Guild Homes (Tayside) Ltd.

ARMADILLO MANHOLE COVER PROTECTOR SHELL



Protects Highway and Tristar manhole covers during the initial construction phase of new build developments. The Armadillo manhole cover protector shell allows covers to be left raised and still withstand extreme loads.

- ▶ Provides protection up to 60 tonnes.
- ▶ Secure vertical anchors prevent lateral movement and fit into existing keyways.
- ▶ Anti-debris guard and seal deters unwanted sediment and spills from entering the drainage system.
- ▶ Easy one person installation and removal.
- ▶ Designed to be reusable and 100% recyclable.

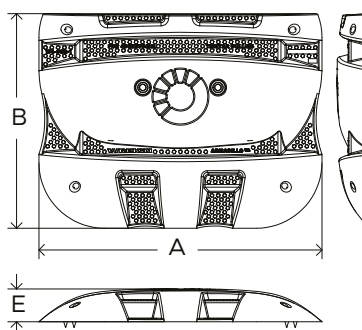
Options: Enhanced anti-slip coating, Alternative badging, Customised colour scheme.

Notes: Secured in place with M16 Allen bolts.

NEW

STOCK CODE	COMPATIBLE WITH: COVER (mm)	OVERALL SIZE (A x B mm)	INNER SIZE (M x N mm)	HEIGHT (E mm)
ARMMSHELL/6060	600 x 600	615 x 615	600 x 600	55
ARMMSHELL/6767	675 x 675	690 x 690	675 x 675	55

ARMADILLO GULLY GRATE PROTECTOR SHELL



Protects raised Tristar gully grates from extreme loads during the initial construction phase of new build developments. The Armadillo gully grate protector shell completely enshrouds Tristar gully grates, allowing gratings to be left raised and withstand extreme loads.

- ▶ For use in Group 3 applications.
- ▶ Simple installation by placing over raised gully grates, can be secured in place with optional quarter turn spring loaded locking clamps.
- ▶ Anti-debris guard deters unwanted waste from entering the drainage system.
- ▶ Accommodates up to 50mm of frame protrusion above the surrounding road surface

Options: Lock and lift clamps, Enhanced anti-slip coating, Alternative badging, Customised colour scheme.

NEW

STOCK CODE	COMPATIBLE WITH: RANGE	COMPATIBLE WITH: CLEAR OPENING (mm)	OVERALL SIZE (A x B mm)	HEIGHT (E mm)
ARMGSHELL/4337	Tristar Gully Grates	430 x 370	645 x 490	75
ARMGSHELL/4545	Tristar Gully Grates	450 x 450	645 x 550	75

NEW

STOCK CODE	DESCRIPTION
ARMGSHELL/CLAMPS/1	Pair of lock and lift clamps for securing an Armadillo Gully Grate Protector Shell to a Tristar Gully Grate

ARMADILLO MANHOLE COVER PROTECTOR SHELLS COMPATIBILITY

STOCK CODE	COMPATIBLE PRODUCT	SIZE (mm)	DESCRIPTION	INCLUDED ACCESSORIES
ARMMSHELL/6060	DMTOD4/6060/KT	600 x 600 x 100	Tristar D400 manhole cover	Neoprene (x4), bolt (x2), nut (x2), washer (x2)
ARMMSHELL/6060	DMTOD6/6060/KT	600 x 600 x 150	Tristar D400 manhole cover	Neoprene (x4), bolt (x2), nut (x2), washer (x2)
ARMMSHELL/6767	DMTOD4/6767/KT	675 x 675 x 100	Tristar D400 manhole cover	Neoprene (x4), bolt (x2), nut (x2), washer (x2)
ARMMSHELL/6767	DMTOD6/6767/KT	675 x 675 x 150	Tristar D400 manhole cover	Neoprene (x4), bolt (x2), nut (x2), washer (x2)
ARMMSHELL/6060	DMTOD4/6060/KH	600 x 600 x 100	Highway D400 manhole cover	Neoprene (x4), bolt (x2), nut (x2), washer (x2)
ARMMSHELL/6060	DMTOD6/6060/KH	600 x 600 x 150	Highway D400 manhole cover	Neoprene (x4), bolt (x2), nut (x2), washer (x2)
ARMMSHELL/6767	DMTOD4/6767/KH	675 x 675 x 100	Highway D400 manhole cover	Neoprene (x4), bolt (x2), nut (x2), washer (x2)
ARMMSHELL/6767	DMTOD6/6767/KH	675 x 675 x 150	Highway D400 manhole cover	Neoprene (x4), bolt (x2), nut (x2), washer (x2)

*Armadillo manhole cover protector shells are not compatible with the Highway Halohinge range of manhole covers.

ARMADILLO GULLY GRATE PROTECTOR SHELLS COMPATIBILITY

STOCK CODE	COMPATIBLE PRODUCT	SIZE (mm)	DESCRIPTION	OPTIONAL ACCESSORIES
ARMGSHELL/4337	DGH0D4/4337/KT	430 x 370	Tristar D400 gully grate	Lock and lift clamp (x2)
ARMGSHELL/4337	DGH0D6/4337/KT	430 x 370	Tristar D400 gully grate	Lock and lift clamp (x2)
ARMGSHELL/4545	DGH0D4/4545/KT	450 x 450	Tristar D400 gully grate	Lock and lift clamp (x2)
ARMGSHELL/4545	DGH0D6/4545/KT	450 x 450	Tristar D400 gully grate	Lock and lift clamp (x2)

BESPOKE ARMADILLO

Armadillo manhole covers and gully grate shells can be customised to meet individual customer requirements, including custom colour schemes, bespoke chequer patterns, enhanced anti-slip coating, and alternative badging.



UNIPAK™

Unipak mortar is a rapid-set, high strength bedding mortar designed to prevent bedding failure, and is suitable for all UK BS EN 124-2 applications.

It can be used on its own or with Uniform chamber adjustment units which are made from the same two part polyester resin material (a proven material used in highway construction) which sets to form a highly durable, homogeneous structure.



UNIPAK ADDRESSES NUMEROUS ISSUES

- ▶ Poor performance of cement based mortars under traffic and weather conditions.
- ▶ Premature road opening before bedding has reached full strength.
- ▶ Incorrect mixing of mortar components.
- ▶ High notch sensitivity of conventional bedding materials.
- ▶ Use of inappropriate or poor-performance packing materials.



UNIPAK BENEFITS

There are several advantages available when increasing the load classification from D400 to E600, including:



Easy to store

Unopened containers can be stored in a cool, dry location, away from extremes of temperature.



Simple to use

Easy to mix, manipulate and form. Unipak has low notch sensitivity and high slump resistance.



Standard installation

Simple installation process using conventional tools.



Meets and exceeds the standards

Exceeds CD 534 and ideal for BS EN 124 applications (Group 1 to 4).



Early road opening

Unipak cures rapidly, in as little as 30 minutes.

UNIPAK™



- ▶ **Easy to store**
Unopened containers can be stored in a cool, dry location, away from extremes of temperature.
- ▶ **Simple to use**
Easy to mix, manipulate and form. Unipak has low notch sensitivity and high slump resistance.
- ▶ **Standard installation**
Simple installation process using conventional tools.
- ▶ **Meets and exceeds the standards**
Exceeds CD 534 and ideal for BS EN 124 applications (Group 1 to 4).
- ▶ **Early road opening**
Unipak cures rapidly, in as little as 30 minutes.

* Available on request, please send us an enquiry

STOCK CODE	UNIFORM ADJUSTMENT UNITS	SIZE (mm)
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PC/UNIPAK/151076	Adjustment unit 1A	760 x 100 x 15
PC/UNIPAK/251076	Adjustment unit 3C	760 x 100 x 25

STOCK CODE	UNIFORM SUPPORT WEDGES	SIZE (mm)
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PC/UNIWEDGE/755012	Support wedge	120 x 50 x 75
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STOCK CODE	UNIPAK MORTAR	TUB PACKING (kg)
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YPCR/U6.5	Mortar (standard)	6.5
YPCR/U12.5	Mortar (standard)	12.5
YPCR/U25	Mortar (standard)	25

GRITBLOCKER™



Access to underground chamber systems is often achieved by lifting manhole cover lids; inserting lifting keys into their keyways, then lifting the lids from the frame and placing them on the pavement surface near the chamber opening.

A keyway full of debris leads to incorrect lifting of a manhole cover out of the ground. This can often take much longer than required and can be potentially dangerous to operatives.

STOCK CODE	DESCRIPTION	WIDTH (mm)	HEIGHT (mm)	QUANTITY
GRITBLOCKER	Anti-blockage keyway insert	50	50	20

SCREWLIFT™



Screwlift is our rapid manhole frame levelling system and is suitable for use with nearly all of our D400 and E600 manhole covers and gully grates.

Screwlift is very straight forward to use and can be installed with any bedding mortar.

Pack contents (1 set):

- ▶ Plastic brushes: 4
- ▶ Allen Keys: 1
- ▶ 5mm Hex Screw Bit: 1
- ▶ Levelling Bolts: 4
- ▶ Total Components: 10

STOCK CODE	DESCRIPTION
SCREWLIFT	Manhole cover levelling system

LIFTING KEYS



KEYS/L



KEYSHEAVY



KEY/LONG

STOCK CODE	DESCRIPTION	DESIGN	LENGTH (mm)
KEYS/L	Multi-cover lifting key	Cross - light/heavy-duty	128
KEYSLIGHT	Light duty lifting key	Cross - light duty	98
KEYSHEAVY	Heavy-duty lifting key	Loop - heavy-duty	171
KEY/LONG	Heavy-duty long lifting key	Loop - heavy-duty	566

SEAL PLATES



The Unite retrofittable seal plate is manufactured from ductile iron, setting it apart from the competition.

Alternatives, which are often manufactured from GRP, can allow corrosion to form between the plate and frame. In fact, other materials can even accelerate corrosion. Our ductile iron assembly provides the best corrosion resistance, as the covers, frames and seal plates are all made from the same material.

Compatible with:

Unite E600

- ▶ DMT0E4/6060/KUE
- ▶ DMT0E4/6767/KUE
- ▶ DMT0E6/6060/KUE
- ▶ DMT0E6/6767/KUE

Unite D400

- ▶ DMT0D6/6060/KUE

STOCK CODE	LOW OR NO LEAK	LOAD CLASS COMPATIBILITY	COMPATIBLE PRODUCT	DIMENSIONS (mm)
DEUESP/6060/LL	Low leak	E600	DMT0E4/6060/KUE & DMT0E6/6060/KUE	600 x 600
DEUESP/6060/NL	No leak	E600	DMT0E4/6060/KUE & DMT0E6/6060/KUE	600 x 600
DEUESP/6767/LL	Low leak	E600	DMT0E4/6767/KUE & DMT0E6/6767/KUE	675 x 675
DEUESP/6767/NL	No leak	E600	DMT0E4/6767/KUE & DMT0E6/6767/KUE	675 x 675
DUESP/6060/LL	Low leak	D400	DMT0D6-6060-KUE	600 x 600
DUESP/6060/NL	No leak	D400	DMT0D6-6060-KUE	600 x 600

REDUCER RING



Used as a place-in-frame, single-component for the reduction of the Clear Opening from 450mm, to 350mm. Compatible with a range of Wrekin access cover products.

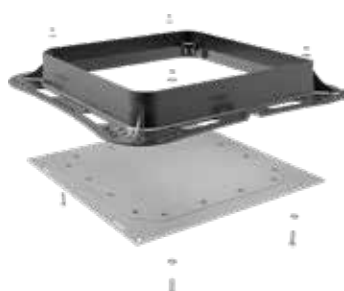
Compatible with:

- ▶ DMT04/4545/KHSQR
- ▶ DMS1A1/45D/K
- ▶ DMS1A2/45D/K
- ▶ DMS1B2/45D
- ▶ DMS1B2/45DKSQR
- ▶ DMS1D4/45D/KT

NEW

STOCK CODE	DESCRIPTION
DREDRING/45/35	450mm to 350mm Reducer Ring

FLOOD AND ODOUR CONTROL PLATES



The Wrekin flood and odour control plate is an optional accessory which can be factory-fitted to Wrekin ductile iron access cover and frames. It is designed to provide the access cover frame with resistance to egress of chamber odours, flood water ingress and intermittent chamber pressures of up to 0.5 bar while allowing access to the chamber via a removable steel lid.

- ▶ Mild steel lid and sub-frame construction.
- ▶ Does not affect Kitemark or other third party certification.
- ▶ Zinc protection to mild steel.

This product is not recommended for situations with prolonged internal or external pressure.

When specifying the use of Flood & Odour Control Plate with a particular Wrekin access cover, add a "PG" suffix to the access cover stock code shown in the catalogue, e.g. **DMT0D4/6060/KTPG**.

DMS1B3/4545/K	52	DMTOD6/6060/KH	29	S	
DMS1B3/6045/K	52	DMTOD6/6060/KT	32	SCREWLIFT	72
DMS1B3/6060/K	52	DMTOD6/6060/KUE	27		
DMS1B3/7560/K	52	DMTOD6/6767/KH	29	Y	
DMS1B3/9060/K	52	DMTOD6/6767/KT	32	YPCR/U6.5	71
DMS1B3/9090/K	52	DMTOD6/6767/KU	27	YPCR/U12.5	71
DMS1C3/4545/K	48	DMTOD6/7560/KH	29	YPCR/U25	71
DMS1C3/6045/K	48	DMTOD6/7575/KH	29		
DMS1C3/6060/K	48	DMTOD6/9060/KH	29		
DMS1C3/7560/K	48	DMTOD6/9090/KH	29		
DMS1C3/9060/K	48	DMTOE4/6060/KH	23		
DMS1D4/45D/KT	33	DMTOE4/6060/KUE	21		
DMS1D4/60D/KT	33	DMTOE4/6767/KH	23		
DMS1D4/60D/KTSF	32	DMTOE4/6767/KUE	21		
DMS1D4/60D/KU	35	DMTOE6/1267/KH	23		
DMS1D4/60D/KUSF	35	DMTOE6/6060/KH	23		
DMTOD4/1267/KH	29	DMTOE6/6060/KUE	21		
DMTOD4/4545/KH	29	DMTOE6/6767/KH	23		
DMTOD4/4545/KHSQR	30	DMTOE6/6767/KUE	21		
DMTOD4/6045/KH	29	DREDRING/45/35	73		
DMTOD4/6045/KT	32				
DMTOD4/6060/KH	29	G			
DMTOD4/6060/KT	32	GRITBLOCKER	72		
DMTOD4/6060/KU	27				
DMTOD4/6767/KH	29	K			
DMTOD4/6767/KT	32	K1GCC/050035	63		
DMTOD4/6767/KU	27	KEYS/HEAVY	72		
DMTOD4/7560/KH	29	KEYS/L	72		
DMTOD4/7575/KH	29	KEYS/LONG	72		
DMTOD4/9060/KH	29	P			
DMTOD4/9090/KH	29	PC/UNIPAK/151076	71		
DMTOD6/1212/4	36	PC/UNIPAK/151576	71		
DMTOD6/1267/KH	29	PC/UNIPAK/251076	71		
DMTOD6/1267/KU	27	PC/UNIPAK/251576	71		
DMTOD6/1867/KU	27	PC/UNIPAK/451076	71		
DMTOD6/4545/KH	29	PC/UNIPAK/451576	71		
DMTOD6/6045/KH	29	PC/UNIWEDGE/755012	71		



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Tel. 01543 440 440
Fax. 01543 440 444
Email. sales@wrekinproducts.com

wrekinproducts.com

Wrekin Products Limited.
Unit 1a, Europa Way
Britannia Enterprise Park
Lichfield, Staffordshire
WS14 9TZ

