

## **DUCTILE IRON RANGE**

MANHOLE COVERS | GULLY GRATES | ACCESSORIES

CATALOGUE | 2022





## 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.

Wrekin's 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.

#### 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 and bespoke steel systems.

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





## **CONTENTS**





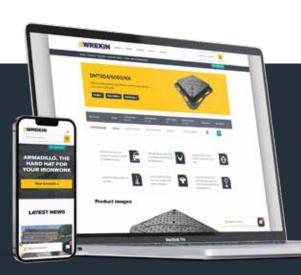








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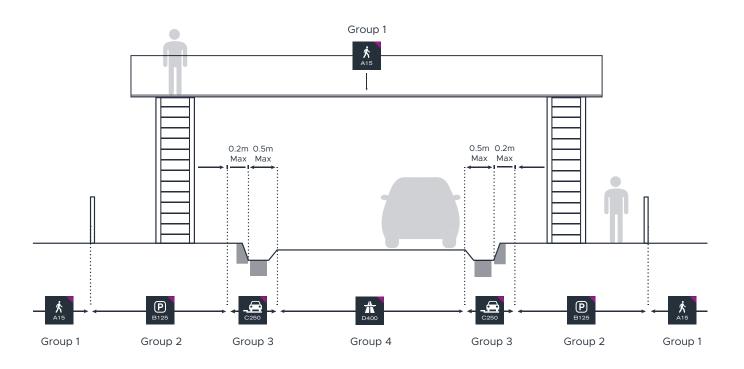
#### **WREKINPRODUCTS.COM**

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.



## 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.



	BS EN	BS EN 124		
Loading	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		
<b>Group 3</b> 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		

#### **BRITISH STANDARDS AND CD534**

#### **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.

#### **DMRB CD 534**



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

- It holds the status of a Technical Regulation (its predecessor; HA 104/09, held the status of an Advice Note).
- Based on leading research, it contains requirements over and above those in BS EN 124 for Skid Resistance.
- 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, 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.



## **BS 7903:1997** (SUPERSEDED)

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

- Guidance document for; Specifiers, Asset Owners, Contractors, Material Suppliers and Manufacturers, derived as a supplement to BS EN 124.
- Developed originally in 1997 to address the UK's main concerns between the withdrawn BS 497 standard and the publication of BS EN 124:1994. Now revised to provide a narrative on BS EN 124:2015 and to capture interim experience and research findings and industry best practice.
- Due to its 'guidance' status, no third party certification scheme is available for it and no claim for compliance can be made.
- Contains useful considerations for product selection.

## **BS 7903:2020** (CURRENT)

"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.



#### **GROUP 1 - CLASS A15**

Access 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 51.



#### **GROUP 2 - CLASS B125**

Access 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 or car decks.

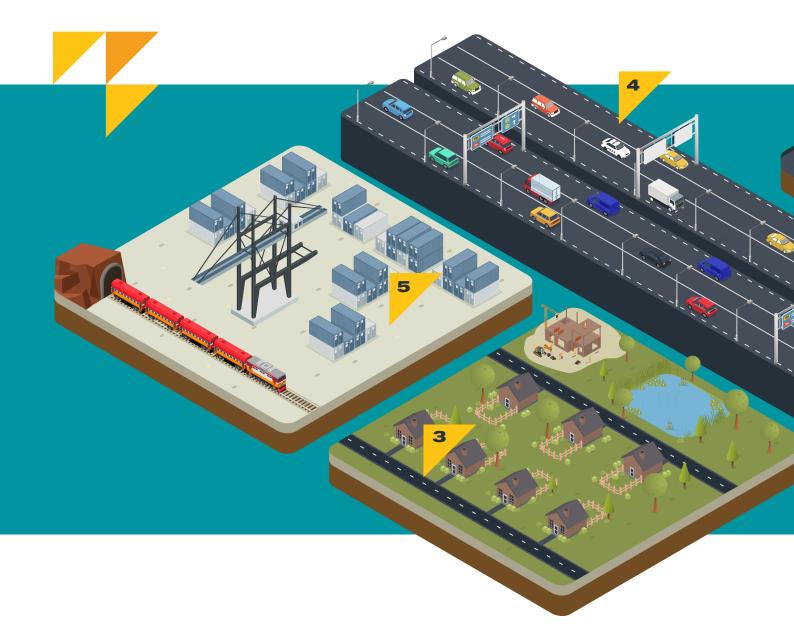
See page 45.



#### **GROUP 3 - CLASS C250**

Access 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 41.





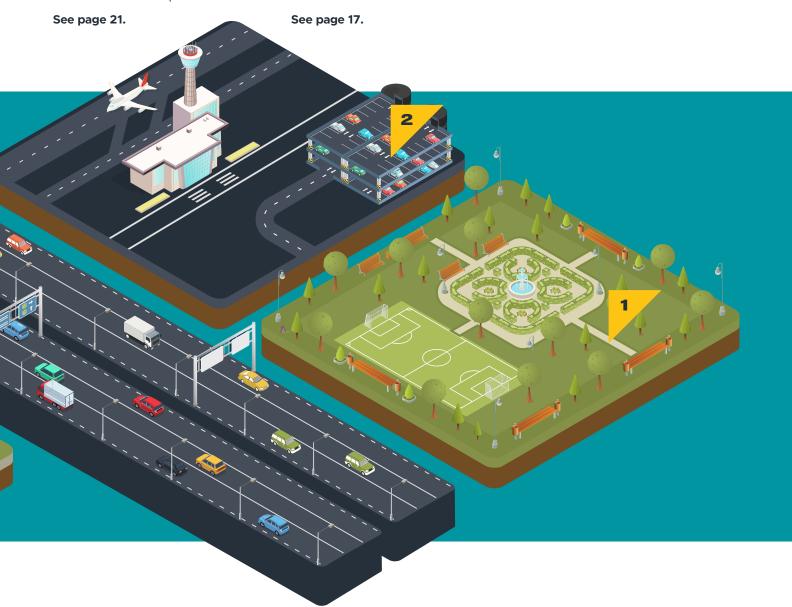


#### **GROUP 4 - CLASS D400**

Access 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.

#### **GROUP 5 - CLASS E600**

Access 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.



#### **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 GRATINGS**

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.

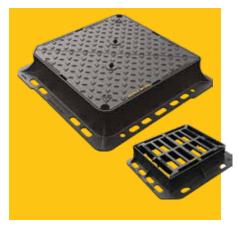
Our extensive ranges include single, double and triple rectangular, round and square to round manhole covers, including popular and less common sizes. Our products are certified by BSi to BS EN 124 and conform with CD 534, as well as many other industry specifications. Many carry the Kitemark, meaning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



Scan to see the full range online







#### **UNITE**

Simply the best performing manhole cover and gully grating 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.



#### **HIGHWAY**

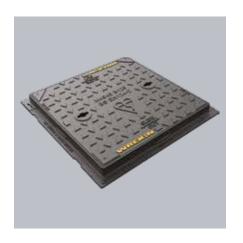
Highway is the UK's leading range of access cover and gully grates, with a solution to nearly every scenario. Highway is available in a comprehensive range of sizes and depths. Compatibility with our innovative Armadillo and Clicklift accessories is included as standard.



#### **TRISTAR**

Safe, reliable, compliant and cost effective. Tristar is ideally suited to housing developments where its feature set will provide a long life and no disruption to residents. Housing developers and groundworkers also benefit from Clicklift and Armadillo compatibility as well as conformity to HA104/09.

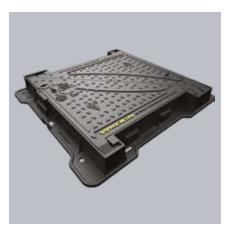




#### **SAFESEAL**

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.

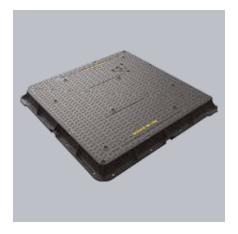




#### **VAULT**

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 a upright position for safe and simple operation.





#### **FHERCULES**

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.





#### **FORCE**

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



# THE ULTIMATE GROUNDWORKER PACKAGE



#### ARMADILLO & CLICKLIFT



## ARMADILLO THE HARD HAT FOR YOUR IRONWORK

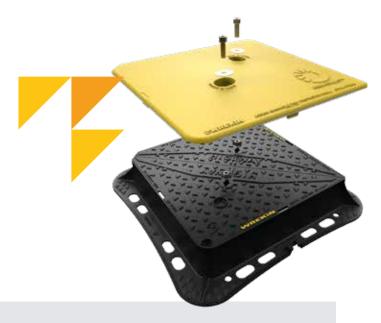
Armadillo is a complete range of protector shells, designed to be placed over manhole covers and gully grates to provide enhanced protection during the construction phase.

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 Wrekin Highway and Tristar manhole covers.
- V
- Armadillo gully grate protector shell is compatible with Wrekin 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 62.

## 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 asphalting



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 61



## 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 27



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 64





#### **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 66

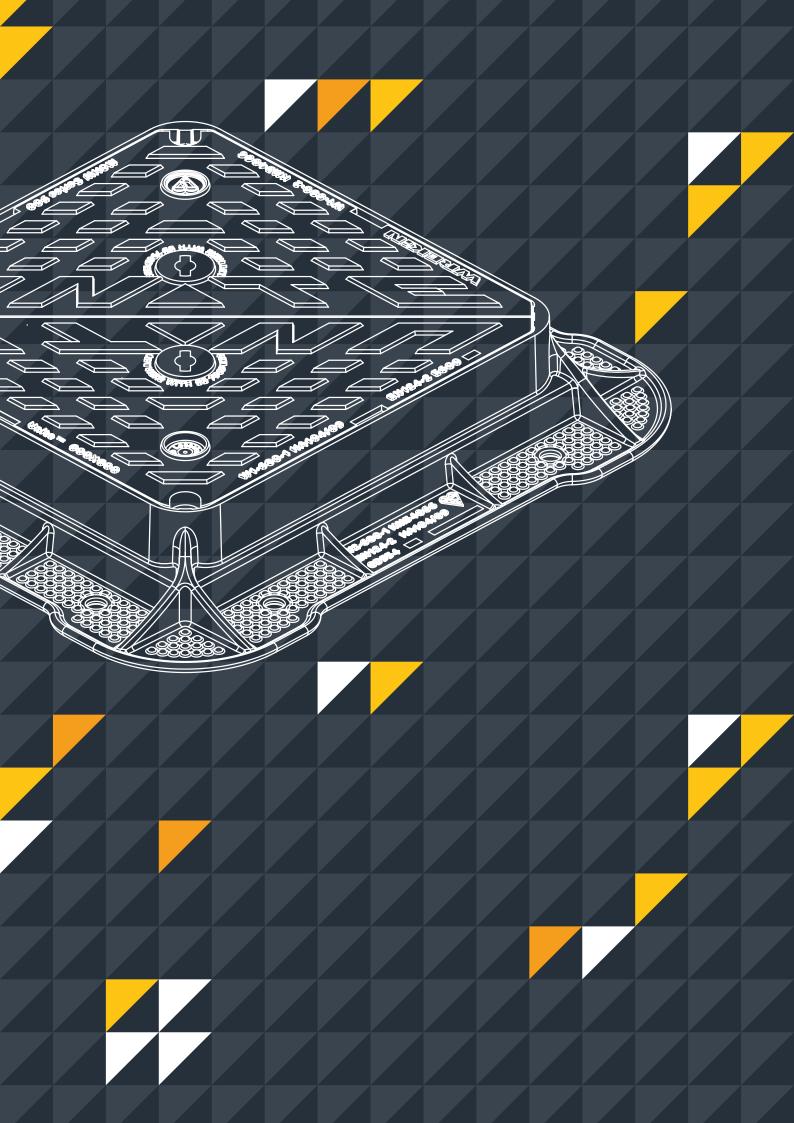




#### **SCREWLIFT**

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 66





## E600 CONTENTS

Access 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.

## Unite 19 Highway 19

#### **ZWREKIN**



## UNITE<sup>TM</sup> 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 (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 CD 534 (formerly HA 104/09), DMRB, MCHW and Series 500.
- ▶ Kitemarked by BSI
- ▶ 100% recyclable product



#### **TEXTURED FLANGE SURFACE**

#### Fit and forget

Both the top and bottom of the flange surface provide a textured finish for bedding mortar to adhere to, allowing Unite to utilise not just the adhesive qualities, but also 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.

#### **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.

Unite provides a simple solution to reduce the impact of foul waste and surface water entering storm drains.





## 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. It also ensures that wear of cover seating is minimised (where the cover meets the frame), which is a common cause of failure in many rival covers.

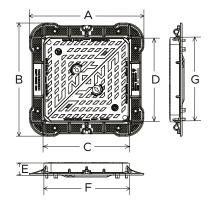


Yellow colour for emphasis only, final product is black.



#### **UNITE E600 MANHOLE COVERS - RECTANGULAR**



















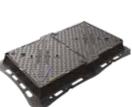
#### **Product Features**

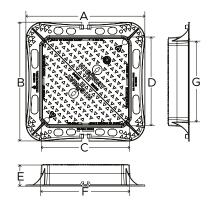
- 60+PSRV tested at top surface of chequer.
- Anti-flex covers prevent the causes of cover seating wear, eliminating excessive noise and catastrophic failure.
- Mechanical lifting points are provided.
- Indexed covers ensure correct fit first time, every time.
- Specially designed cover support geometry reduces movement relative to the frame, minimising seating wear.
- Gritblocker™ anti-blockage keyway insert comes pre-installed.

STOCK CODE	OVERALL FRAME (A x B mm)	CLEAR OPENING (C x D mm)	FRAME DEPTH (E mm)	BASE OPENING (F x G mm)
DMT0E4/6060/KUE	880 x 880	600 x 600	100	655 x 655
DMT0E4/6767/KUE	945 x 945	675 x 675	100	730 x 730
DMT0E6/6060/KUE	880 x 880	600 x 600	150	655 x 655
DMT0E6/6767/KUE	945 x 945	675 x 675	150	730 × 730

#### **HIGHWAY E600 MANHOLE COVERS - RECTANGULAR**

















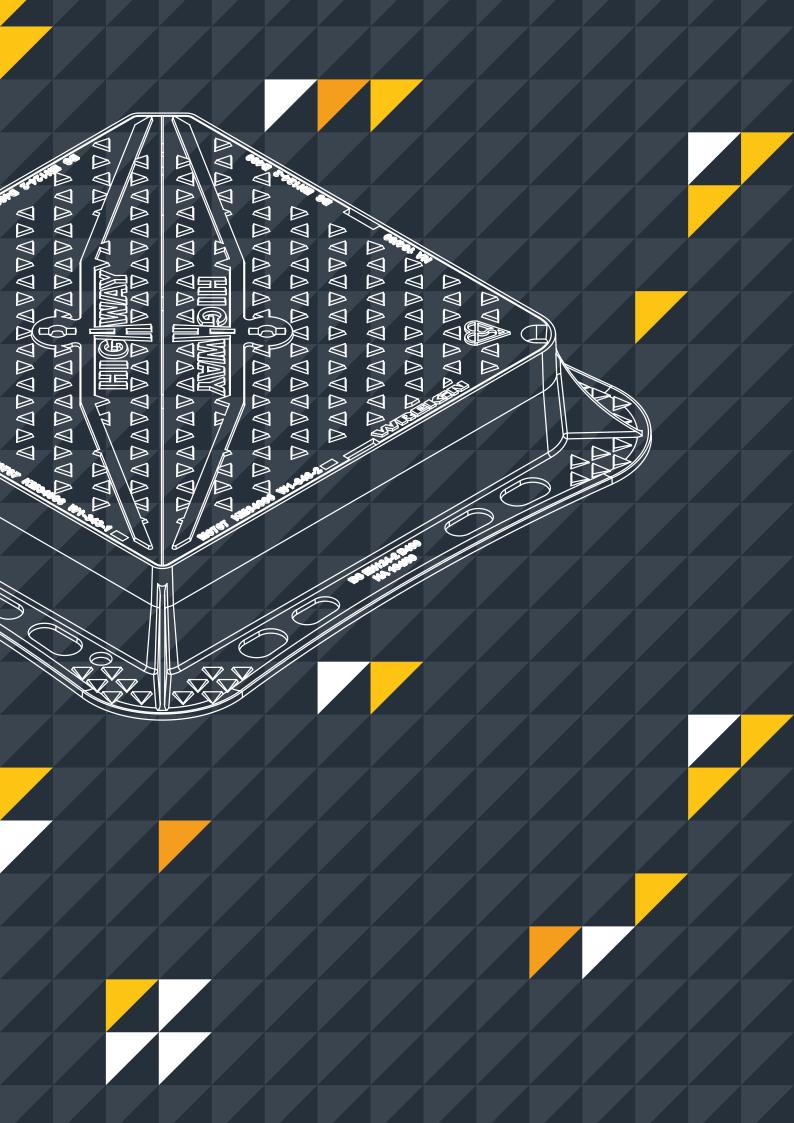




#### **Product Features**

- 60+PSRV tested at top surface of chequer.
- Enlarged frame corners help to dissipate load minimising bearing
- 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.

STOCK CODE	OVERALL FRAME (A x B mm)	CLEAR OPENING (C x D mm)	FRAME DEPTH (E mm)	BASE OPENING (F x G mm)
DMT0E4/6060/KH	845 x 845	610 x 610	100	635 x 635
DMT0E4/6767/KH	900 x 900	685 x 685	100	710 x 710
DMT0E6/6060/KH	845 x 845	610 x 610	150	635 x 635
DMT0E6/6767/KH	900 x 900	685 x 685	150	710 x 710
DMT0E6/1267/KH	1,460 x 895	1,220 x 675	150	1,245 x 700





## D400 CONTENTS

Access 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	23
Highway	25
Tristar	28
Force	31
Hercules	32
Vault	33

#### **Gully Grates**

Unite	35
Highway 3 Flange	36
Highway 4 Flange	38
Highway V	39
Tristar	39



#### **ZWREKIN**



## UNITE<sup>TM</sup> 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 (formerly HA 104/09).

Over the course of 40 years we have gained a deep understanding of pavement and highway ironwork performance. Using the very latest tools and software, the Unite range of manhole covers have been engineered for extremely long life.

Key to Unite's longevity is minimising seat wear between covers and frames. The range has the stiffest cover structure in its class and on top of this, seating which is less vulnerable to any movement caused by cover flexing which may take place.

Unite has been designed to work sympathetically with bedding mortars, reducing stresses on the frame foundation, which has been identified by WRC as a major cause of manhole cover failure.



#### 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, CD 534 (formerly HA 104/09) and Series 500
- ▶ 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 67

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

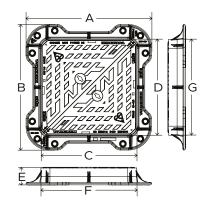
Access to manhole cover and gully chambers can be controlled with the use of factory fitted locking bolts.



#### **UNITE D400 MANHOLE COVERS - RECTANGULAR**



















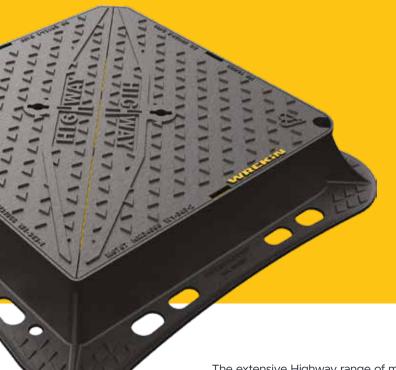


#### **Product Features**

- 60+PSRV tested at top surface of chequer.
- First 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.

STOCK CODE	OVERALL FRAME (A x B mm)	CLEAR OPENING (C x D mm)	FRAME DEPTH (E mm)	BASE OPENING (F x G mm)
DMT0D4/6060/KU	810 x 810	600 x 600	110	630 x 630
DMT0D4/6767/KU	885 x 885	675 x 675	110	705 x 705
DMT0D6/6767/KU	885 x 885	675 x 675	150	705 × 705
DMT0D6/1267/KU	1,465 x 920	1,220 x 675	150	1,250 × 710
DMT0D6/1867/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

#### **ZWREKIN**



## HIGHWAY® D400 MANHOLE COVERS

Highway is our most versatile range of iron manhole covers and gully grates. With a vast variety of sizes and options available, we have a solution for even the most complex project.

All Highway products have been manufactured from highly durable, ductile iron to provide you with a quality, long lasting solution.

The extensive Highway range of manhole covers and gully gratings delivers reliable installation and prolonged life, with extensive options available, such as ventilation holes, flood and odour control plates and enhanced, anti-slip coatings as well as patented safety provisions and design features to ensure safe and robust performance.

Select products compatible with Clicklift, Armadillo, Gritblocker and Screwlift. See all accessories on page 59.



60+PSRV tested at top surface of chequer.



V

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.



ASSET

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

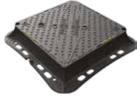


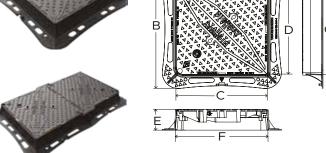


A BS7903 lifting key can be used for both lifting and cover removal



#### **HIGHWAY D400 MANHOLE COVERS - RECTANGULAR**



















#### **Product Features**

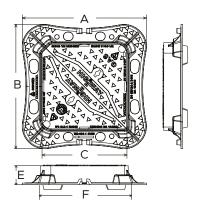
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- Indexed corners ensure correct orientation first time, every time.
- Mechanical lifting points are provided.
- Can be retrofitted with a customer or application specific ID badge.
- Safety keyway prevents accidental disengagement of the lifting key during the handling process.
- Select products compatible with Clicklift, Armadillo, Gritblocker and Screwlift. See all accessories on page 59.

STOCK CODE	OVERALL FRAME (A x B mm)	CLEAR OPENING (C x D mm)	FRAME DEPTH (E mm)	BASE OPENING (F x G mm)
DMT0D4/4545/KH	665 x 665	450 x 450	100	475 x 475
DMT0D4/6045/KH	815 x 665	600 x 450	100	625 x 475
DMT0D4/6060/KH	810 x 810	600 x 600	100	620 x 620
DMT0D4/6767/KH	885 x 885	675 x 675	100	700 x 700
DMT0D4/7560/KH	965 x 815	750 x 600	100	775 x 625
DMT0D4/7575/KH	965 x 965	750 x 750	100	775 x 775
DMT0D4/9060/KH	1,115 x 815	900 x 600	100	925 x 625
DMT0D4/9090/KH	1,130 x 1,130	900 x 900	100	925 x 925
DMT0D4/1267/KH	1,460 x 895	1,220 x 675	100	1,245 x 700
DMT0D6/4545/KH	665 x 665	450 x 450	150	475 x 475
DMT0D6/6045/KH	815 x 665	600 x 450	150	625 x 475
DMT0D6/6060/KH	810 x 810	600 x 600	150	620 x 620
DMT0D6/6767/KH	885 x 885	675 x 675	150	695 x 695
DMT0D6/7560/KH	965 x 815	750 x 600	150	775 x 625
DMT0D6/7575/KH	965 x 965	750 x 750	150	775 x 775
DMT0D6/9060/KH	1,115 x 815	900 x 600	150	925 x 625
DMT0D6/9090/KH	1,130 x 1,130	900 x 900	150	925 x 925
DMT0D6/1267/KH	1,460 x 895	1,220 x 675	150	1,245 x 700



#### **HIGHWAY D400 MANHOLE COVERS - SQUARE TO ROUND**

















#### **Product Features**

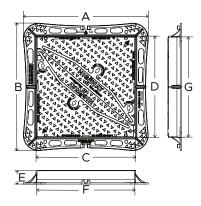
- 60+PSRV tested at top surface of chequer.
- Enlarged frame corners help to dissipate load minimising bearing pressure.
- Indexed corners ensure correct orientation first time, every time.
- Mechanical lifting points are provided.
- Can be retrofitted with a customer or application specific ID badge.
- Safety keyway prevents accidental disengagement of the lifting key during the handling process.

STOCK CODE	OVERALL FRAME	CLEAR OPENING	FRAME DEPTH	BASE OPENING
	(A x B mm)	(C mm)	(E mm)	(F mm)
DMT0D4/4545/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.

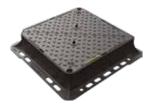
#### **Product Features**

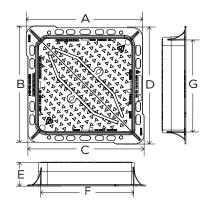
- 60+PSRV tested at top surface of chequer.
- Enlarged frame corners help to dissipate load minimising bearing pressure.
- Indexed corners ensure correct orientation first time, every time.
- Mechanical lifting points are provided.
- Can be retrofitted with a customer or application specific ID badge.
- 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.

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
DMHT0D4/6060/KH	815 x 815	600 x 600	100	625 x 625
DMHT0D4/6767/KH	890 x 890	675 x 675	100	700 x 700
DMHT0D4/7560/KH	960 x 810	750 x 600	100	770 x 620
DMHT0D4/7575/KH	960 x 960	750 x 750	100	770 x 770
DMHT0D4/9060/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
DMHT0D6/9060/KH	1,110 x 810	900 x 600	150	920 x 620



#### TRISTAR D400 MANHOLE COVERS - RECTANGULAR















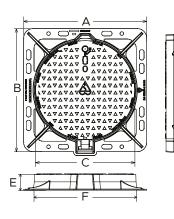
#### **Product Features**

- 60+PSRV tested at top surface of chequer.
- Enlarged frame corners help to dissipate load minimising bearing
- 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 59.

STOCK CODE	OVERALL FRAME (A x B mm)	CLEAR OPENING (C x D mm)	FRAME DEPTH (E mm)	BASE OPENING (F x G mm)
DMT0D4/6045/KT	750 x 600	600 x 450	100	620 x 470
DMT0D4/6060/KT	760 x 760	600 x 600	100	620 x 620
DMT0D4/6767/KT	830 x 830	675 x 675	100	700 x 700
DMTOD6/6060/KT	760 x 760	600 x 600	150	620 x 620
DMT0D6/6767/KT	830 x 830	675 x 675	150	700 x 700

#### TRISTAR D400 MANHOLE COVERS - ROUND COVER, SQUARE FRAME

















#### **Product Features**

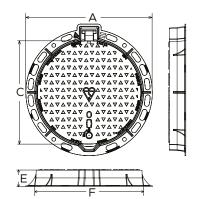
- 60+PSRV tested at top surface of chequer.
- Safety keyway prevents accidental disengagement of the lifting key during the handling process.
- Safety stop hinge prevent covers falling once opened.
- Spring bar low security locking feature.

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



#### **TRISTAR D400 MANHOLE COVERS - ROUND**















#### **Product Features**

- 60+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.

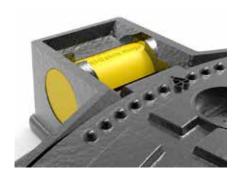
STOCK CODE	OVERALL FRAME (A mm)	CLEAR OPENING (C mm)	FRAME DEPTH (E mm)	BASE OPENING (F mm)
DMS1D4/45D/KT	Ø 620	Ø 450	100	Ø 500
DMS1D4/60D/KT	Ø 770	Ø 600	100	Ø 650

#### **ZWREKIN**



## FORCETM ULTIMATE DURABILITY

Our Force™ cover delivers ultimate durability and patented antidebris ClearBore™ hinges with easy lift provision. The design borrows several key principles from our premium Unite range of ironwork. Combined with the Unipak system, our Force™ cover creates the perfect solution to more than just premature road furniture failure.



#### ClearBore™ Hinge

Ensures a smooth hinge opening by blocking dirt and debris from entering the mechanism.



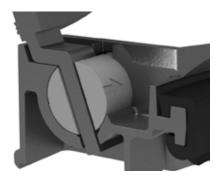
#### Frame Depth

With a 100mm deep frame, units can be retrofitted on to existing cover slabs.



#### **Textured frame**

The side wall surface features a mortar engagement texture, as well as a stress arresting frame edge.



#### **Safety Hinge**

The cover is locked in position when open, thanks to our unique safety stop hinge.



#### Unipak

Unipak bedding mortair is rapid-set, high strength and suitable for all BS EN 124-2 applications.



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

#### **Available Accessories:**

- ▶ Gritblocker™
- Screwlift™
- BS 7903 Lifting Keys

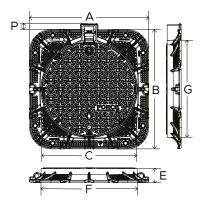






#### FORCE D400 MANHOLE COVERS - SQUARE TO ROUND

















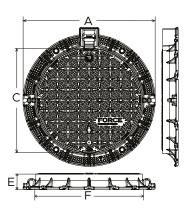
#### **Product Features**

- Designed to be lifted by a single person, helping to reduce labour
- 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
- Safety keyway prevents accidental disengagement of the lifting key during the handling process.

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

#### **FORCE D400 MANHOLE COVERS - ROUND**













#### **Product Features**

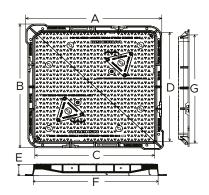
- Designed to be lifted by a single person, helping to reduce labour
- Mechanical lifting points & BS7903 frame lifting points are provided.
- Spring bar low security locking feature.
- Anti-flex covers prevent the causes of cover seating wear, eliminating excessive noise and catastrophic failure.
-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

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



#### **HERCULES D400 MANHOLE COVERS - RECTANGULAR**











#### **Product Features**

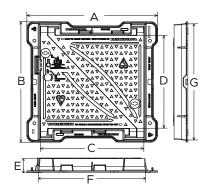
- 60+PSRV tested at top surface of chequer.
- Anti-flex covers prevent the causes of cover seating wear, eliminating excessive noise and catastrophic failure.
- Specially designed cover support geometry reduces movement relative to the frame, minimising seating wear.
- Enlarged frame corners help to 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	CLEAR OPENING	FRAME DEPTH	BASE OPENING
	(A x B mm)	(C x D mm)	(E mm)	(F x G mm)
DMT0D6/1212/4	1,385 x 1,385	1,200 x 1,200	150	1,230 x 1,230



#### **VAULT D400 MANHOLE COVERS - RECTANGULAR**

















#### **Product Features**

- LPCB series 3 lock.
- 60+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

#### **ZWREKIN**



## **UNITE**<sup>TM</sup> 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.



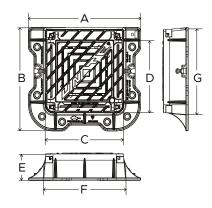


Safety-stop hinges prevent the grating from falling once opened.



#### **UNITE D400 GULLY GRATES**



















#### **Product Features**

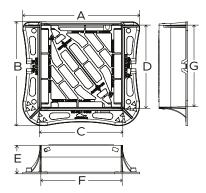
- Beam in beam design.
- Specially designed cover support geometry reduces movement relative to the frame, minimising seating wear.
- Enlarged frame corners help to dissipate load minimising bearing pressure.
- Hinged in 3 directions product can fit in any required orientation.
- Mechanical lifting points 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.

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 (cm²)	CD 526 CLASSIFICATION
DGHT0D4/4545/KU	670 x 580	450 x 450	100	475 x 475	1,440	Q
DGHT0D6/4545/KU	670 x 580	450 x 450	150	475 x 475	1,440	Q



#### **HIGHWAY D400 GULLY GRATES - 3 FLANGE**



















#### **Product Features**

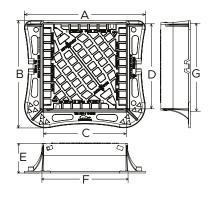
- Captive hinges reduce theft risk whilst allowing easy lifting.
- Enlarged frame corners help to dissipate load minimising bearing pressure.
- Mechanical lifting points are provided.
- Reversible hinge allows the grating to hinge with the direction of the traffic flow, improving safety.

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 (cm²)	CD 526 CLASSIFICATION
DGHT0D4/4242/KH	615 x 545	425 x 425	100	450 x 450	1,250	R
DGHT0D4/4337/KH	565 x 545	370 x 430	100	390 x 450	1,000	R
DGHT0D4/5035/KH	675 x 445	480 x 320	100	500 x 350	950	R
DGHT0D4/6045/KH	775 x 545	425 x 425	100	600 x 450	1,750	Q
DGHT0D4/6060/KH	775 x 695	580 x 580	100	600 x 600	2,150	Р
DGHT0D4/1045/KH	1,175 x 545	980 x 425	100	1,000 x 450	2,750	Р
DGHT0D6/4242/KH	615 x 545	425 x 425	150	450 x 450	1,250	R
DGHT0D6/4337/KH	565 x 545	370 x 430	150	390 x 450	1,000	R
DGHTOD6/4545/KHSH	650 x 575	450 x 450	150	480 x 475	1,450	Q
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	Р
DGHT0D6/1045/KH	1,175 x 545	980 x 425	150	1,000 x 450	2,750	Р
DGHT0D6/5035/KH	675 x 445	480 x 320	150	500 x 350	950	R



#### **HIGHWAY D400 GULLY GRATES - 3 FLANGE - PEDESTRIAN SAFE**



















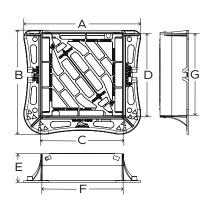
#### **Product Features**

- 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.

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 (cm²)	CD 526 CLASSIFICATION
DGHT0D4/4545/KHP	615 x 545	425 x 425	100	450 x 450	910	R
DGHT0D6/4242/KHP	615 x 545	425 x 425	150	450 x 450	910	R

#### **HIGHWAY D400 GULLY GRATES - 3 FLANGE - KERB HINGED**

















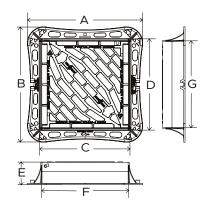
- Captive hinges reduce theft risk whilst allowing easy lifting.
- Enlarged frame corners help to dissipate load minimising bearing pressure.
- Mechanical lifting points are provided.
- Reversible hinge allows the grating to hinge with the direction of the traffic flow, improving safety.

STOCK CODE	OVERALL FRAME	CLEAR OPENING	FRAME DEPTH	BASE OPENING	WATERWAY AREA	CD 526
	(A x B mm)	(C x D mm)	(E mm)	(F x G mm)	(cm²)	CLASSIFICATION
DGHT0D6/4545/KHK	625 x 535	410 x 430	150	450 x 440	1,250	R



#### **HIGHWAY D400 GULLY GRATES - 4 FLANGE**

















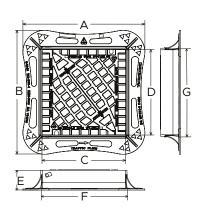
#### **Product Features**

- Captive hinges reduce theft risk whilst allowing easy lifting.
- Enlarged frame corners help to dissipate load minimising bearing pressure.
- Mechanical lifting points are provided.

STOCK CODE	OVERALL FRAME (A x B mm)	(C x D mm)	FRAME DEPTH (E mm)	BASE OPENING (F x G mm)	WATERWAY AREA (cm²)	CD 526 CLASSIFICATION
DGHT0D4/4242/KH4F	625 x 615	425 x 425	100	450 x 450	1,250	R
DGHT0D4/4337/KH4F	625 x 565	430 x 370	100	450 x 390	1,000	R
DGHTOD4/6060/KH4F	775 × 775	580 x 580	100	600 x 600	2,150	Р
DGHT0D4/1045/KH4F	1,175 x 625	980 x 425	100	1,000 x 450	2,750	Р
DGHT0D4/6045/KH4F	775 625	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
DGHT0D6/4337/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	Р
DGHTOD6/1045/KH4F	1,175 x 625	980 x 425	150	1,000 x 450	2,750	Р
DGHTOD6/6045/KH4F	775 x 625	425 x 425	150	600 x 450	1,750	Q

#### **HIGHWAY D400 GULLY GRATES - 4 FLANGE - PEDESTRIAN SAFE**

















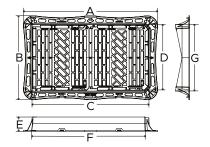
- Safe for bikes and pedestrians.
- Captive hinges reduce theft risk whilst allowing easy lifting.
- Enlarged frame corners help to dissipate load minimising bearing pressure.
- Mechanical lifting points are provided.

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 (cm²)	CD 526 CLASSIFICATION
DGHT0D4/4242/KHP4F	625 x 615	425 x 425	100	450 x 450	910	R
DGHT0D6/4242/KHP4F	625 x 615	425 x 425	150	450 x 450	910	R



#### **HIGHWAY D400 GULLY GRATES - V**



















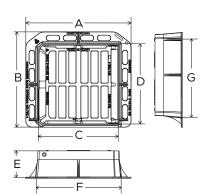
#### **Product Features**

- Enlarged frame corners help to dissipate load minimising bearing pressure.
- Mechanical lifting points are provided.
- Spring bar low security locking feature.

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 (cm²)	CD 526 CLASSIFICATION
DGHVOD6/6060/KH	800 x 800	600 x 600	150	625 x 625	1,950	Р
DGHV0D6/6712/KH	1,405 x 880	1,205 x 675	150	1,230 x 705	4,550	Р
DGHVOD6/9090/KH	1,100 x 1,100	900 x 900	150	925 x 925	5,100	Р
DGHV0D8/1267/KH	1,405 x 880	1,200 x 675	200	1,230 x 705	4,550	Р

#### **TRISTAR D400 GULLY GRATES**















- Captive hinges reduce theft risk whilst allowing easy lifting.
- \* 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 (cm²)	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

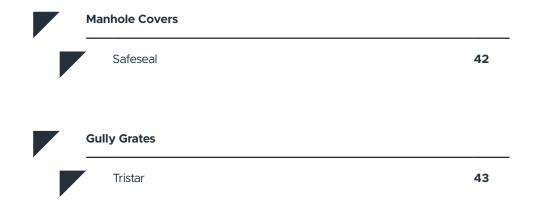




## C250 CONTENTS

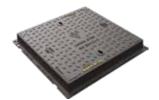
Access covers and gratings capable of withstanding a 25 tonne test load.

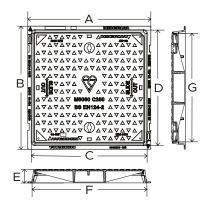
For installation no more than 500mm from the kerb face into the carriageway.





#### **SAFESEAL C250 MANHOLE COVERS - RECTANGULAR**













#### **Product Features**

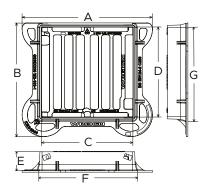
- 60+PSRV tested at top surface of chequer.
- Indexed corners ensure correct orientation first time, every time.
- Labyrinth seal helps to prevent odour escapes and water ingress.
- Safety keyway prevents accidental disengagement of the lifting key during the handling process.

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 × 560	600 x 450	75	650 x 500
DMS1C3/6060/K	710 × 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 × 710	900 x 600	75	950 x 650



#### **TRISTAR C250 GULLY GRATES - HINGED**









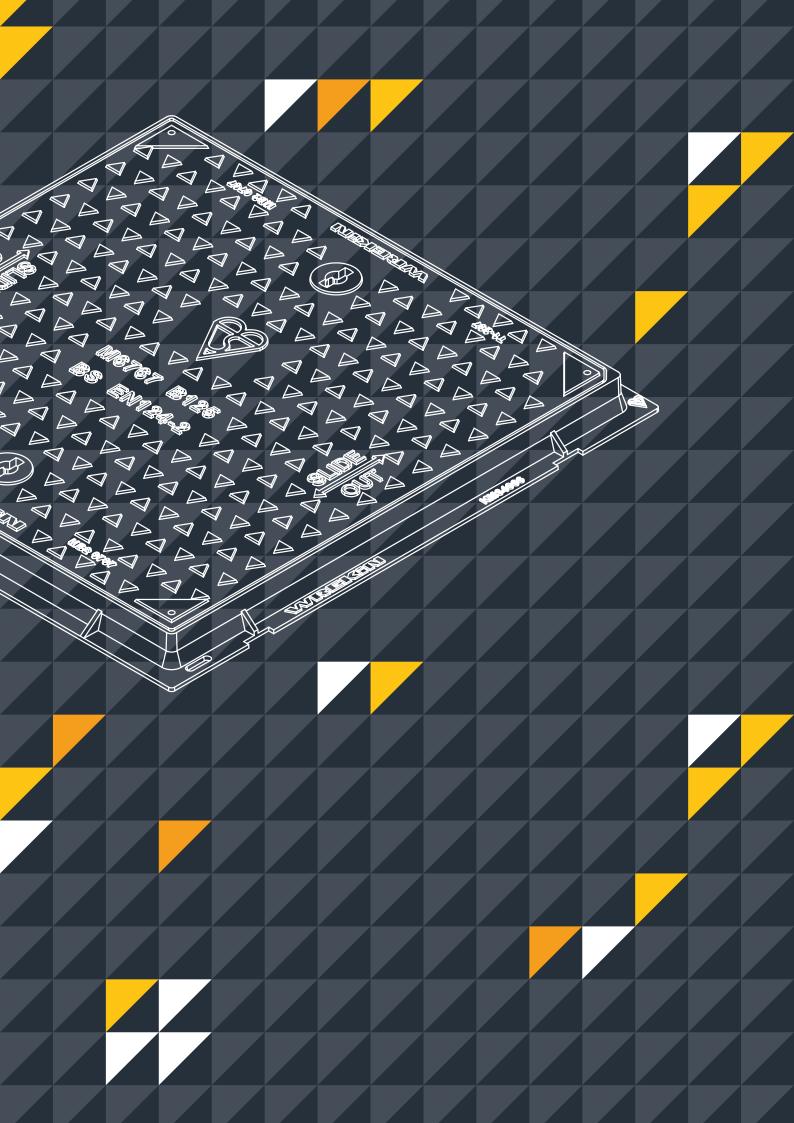


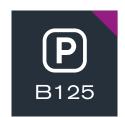


#### **Product Features**

- 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 (cm²)	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

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

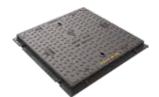
For use in footways, pedestrian areas and comparable areas such as car parks or car decks.

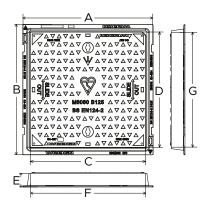
# Safeseal 46 Gully Grates Tristar 48





#### SAFESEAL B125 MANHOLE COVERS - RECTANGULAR











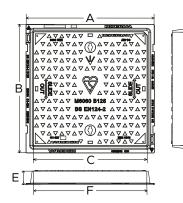
#### **Product Features**

- \* 60+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 × 750	50	790 x 790
DMS1B2/9060/K *	1,010 × 710	900 x 600	40	950 x 650
DMS1B3/9060/K *	1,010 × 710	900 x 600	75	950 x 650
DMS1B3/9090/K *	1,020 × 1,020	900 x 900	75	960 x 960

#### SAFESEAL B125 MANHOLE COVERS - SQUARE TO ROUND











#### **Product Features**

- 60+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.

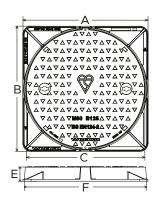
STOCK CODE	OVERALL FRAME (A x B mm)	CLEAR OPENING (C mm)	FRAME DEPTH (E mm)	BASE OPENING (F x G mm)	
DMS1B2/45D/KSQR	550 x 550	Ø 450	40	490 x 490	

G



#### SAFESEAL B125 MANHOLE COVERS - ROUND COVER, SQUARE FRAME











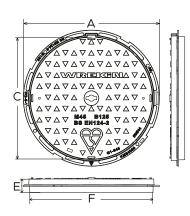
#### **Product Features**

- 60+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**

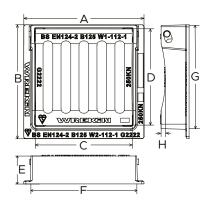
- \* 60+PSRV tested at top surface of chequer.
- Indexed corners ensure correct orientation first time, every time.
- Labyrinth seal helps to prevent odour escapes and water ingress.
- Safety keyway prevents accidental disengagement of the lifting key during the handling process.

STOCK CODE	OVERALL FRAME (A x B mm)	CLEAR OPENING (C 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**









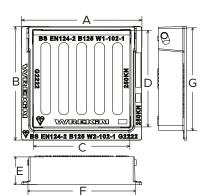
#### **Product Features**

- 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 (cm²)	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**



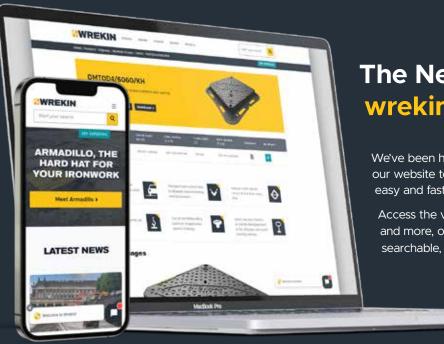






- Designed with anti-theft in mind alongside providing optimum strength whilst maximising the available drainage area.
- The captive hinge allows easy opening for maintenance.
- Comply with BS EN 124:2015.
- References with '/F' denote a flat top.

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 (cm²)
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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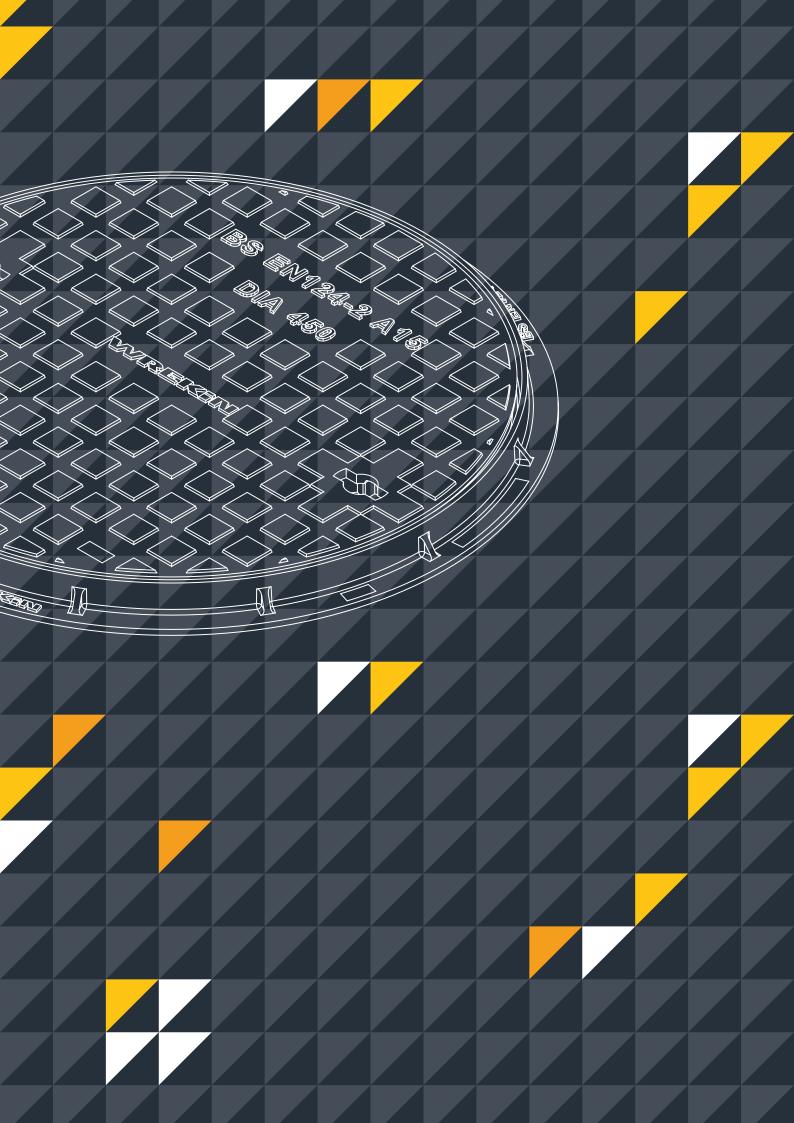
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## A15 CONTENTS

Access 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.

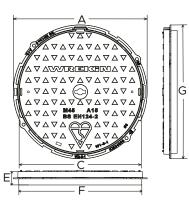
## Manhole Covers Safeseal 52





#### **SAFESEAL A15 MANHOLE COVERS - ROUND**











#### **Product Features**

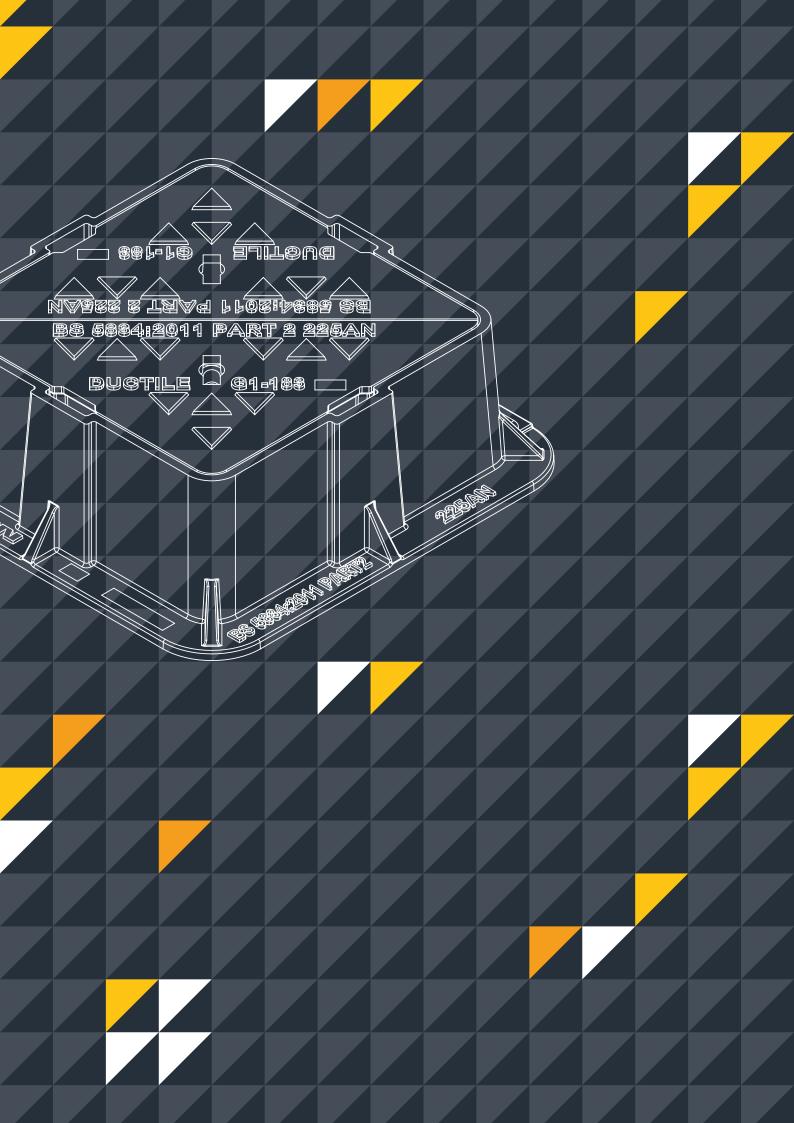
- Labyrinth seal helps to prevent odour escapes and water ingress.
- Indexed covers ensure correct fit first time, every time.
- 60+PSRV tested at top surface of chequer.
- Safety keyway prevents accidental disengagement of the lifting key during the handling process.

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



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## SURFACE BOXES & KERB UNITS CONTENTS

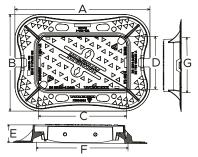
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#### **HIGHWAY SURFACE BOXES**



















#### **Product Features**

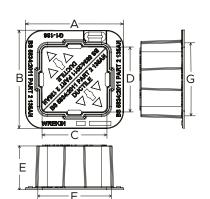
- Enlarged frame corners help to dissipate load minimising bearing
- Indexed covers ensure correct fit first time, every time.
- Mechanical lifting points are provided.
- Safety keyway prevents accidental disengagement of the lifting key during the handling process.

STOCK CODE	OVERALL FRAME	CLEAR OPENING	FRAME DEPTH	BASE OPENING
	(A x B mm)	(C x D mm)	(E mm)	(F x G mm)
DBT0D4/4428/KH	680 x 515	445 x 280	100	465 x 300

#### **TRISTAR SURFACE BOXES**



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













#### **Product Features**

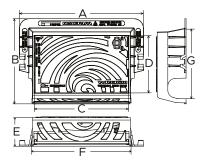
- Manufactured from highly durable ductile iron, which offers high strength and performance in robust enclosures.
- We offer a range of BS 5834 Grade A heavy duty, double triangular surface boxes and a D400 Fire Hydrant surface box.
- $^{\ast}$  Products ending in /K are kitemarked & conform to BS EN 124 & BS

STOCK CODE	OVERALL FRAME (A x B mm)	CLEAR OPENING (C x D mm)	FRAME DEPTH (E mm)	BASE OPENING (F x G mm)
DBT0A4/1515	230 x 230	150 x 150	100	155 x 155
DBT0A4/2222	305 x 305	225 x 225	100	235 x 235
DBT0A4/3030	380 x 380	300 x 300	100	305 x 305
DBS0A5/3823/KT	490 x 345	380 x 230	125	390 x 240
DBTOA6/1515	260 x 260	150 x 150	150	160 x 160
DBS0A4/1010	195 x 195	105 x 105	100	150 x 150
DBS0A6/1010	195 x 195	105 x 105	150	150 x 150



#### H<sub>2</sub>GO













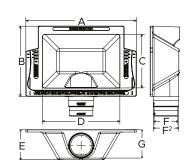
#### **Product Features**

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

#### **GULLY CHUTE CONNECTOR**





#### **Product Features**

Our gully chute connectors are intended for installation below a grating or kerb type gully unit with a primary catchment chamber and spigot outlet.

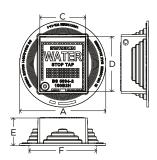
Ideal where gully grates are offset to gully pots or where direct surface run off is required, Wrekin's high strength gully chute connector is designed to fix below a BS EN 124 500mm x 350mm gully grate or kerb mounted gully unit (above) to act as a primary catchment chamber.

Top opening: 490mm x 340mm Overall spigot size: 150mm x 160mm Frame top to spigot invert depth: 165mm

STOCK CODE	DIMENSIONS (mm)
K1GCC/050035	700 x 445 x 190

#### **STOP TAP BOX**





#### Product Features

- Made from high durability ductile iron to ensure that they provide long term service.
- 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.

STOCK CODE	Overall Frame (A mm)	Clear opening (C x D mm)	FRAME HEIGHT (E mm)	BASE OPENING (F mm)
DBH03A/1311	Ø 210	110 x 130	75	Ø 155
DBH03A/1512	Ø 235	125 x 150	75	Ø 185
DBH03A/1515	Ø 250	150 x 150	75	Ø 205



## ACCESSORIES & INNOVATIONS CONTENTS

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### **SUCCESS STORY**

### CLICKLIFT

**Orchard Croft, Diss** Barconn Ltd.

Clicklift was installed on a new build development in Diss, Norfolk. Clicklift allowed the contractor to raise the ironwork on their previously installed manhole covers in just 30 minutes, on a road that would have previously taken 2-3 weeks. It removed health and safety issues, such as working in confined spaces, and required no special training for the operatives.

In addition the property developer benefited by removing the need for letter drops and the management of resident's parked cars.







Clicklift™ has become fully approved by Anglian Water meaning the patented product is now fully approved for groundworker use on housing developments within the Anglian Water network.

The Clicklift BSi Kitemarked system provides a rapid solution to raising our Highway and Tristar frames, eliminating the time and resources required to dig out and reinstall frames to suit the final road surface layer once a housing development has completed.

After successful trials at the Orchard Croft and Chamberlains Barn Quarry housing developments in Diss, Norfolk, and Leighton Buzzard, Bedfordshire, respectively, Anglian Water has approved the Clicklift™ system for contractors to use on developer services.

Dave Sanders, Senior National Contracts Manager said: "We are delighted that our Clicklift solution has been recognised by Anglian Water. We understand the problems housebuilders and groundworkers face daily and manhole cover reinstallation - with its associated disruption, damage and cost - has a massive impact on the industry.

"Commonly, manhole covers are installed in the early stages of a housing development, well before the final tarmac is laid. This either means that the manhole cover is installed proud of the binding layer - leaving it susceptible to construction traffic damage - or if installed level with the binding layer, must be entirely dug out and effectively installed again. Both scenarios mean additional costs and potential complications.

"Clicklift raises Highway and Tristar frames to suit the final surface layer without the need for digging out and re-installing. The cover and the frame are installed at the binding layer level, thereby reducing the possibility of site damage and then, when the finish surface layer is being applied, the manhole cover can be raised with the Clicklift™ frame extender simply and quickly.

"It's been more than two years since we first presented Clicklift™ to the team at Anglian Water, and since then, we've undertaken two in-depth and varying trials to ensure the product meets the requirements and expectations of Anglian Water. We've always known the benefits that Clicklift™ would have for contractors, housebuilders and utility companies alike, and are incredibly proud these attributes have been recognised by Anglian Water."

"When we were approached to trial Wrekin's new Clicklift™ product we were incredibly optimistic, and we haven't been disappointed."

#### Steve Allen

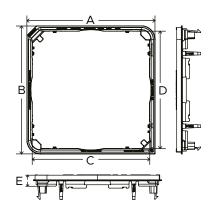
Adoptions Manager for the Orchard Croft development.



#### **CLICKLIFT**<sup>™</sup>







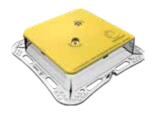
#### **Product Features**

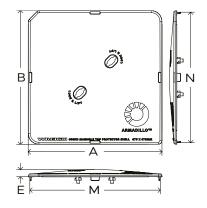
- Raises Tristar & Highway D400 manhole covers to suit the final surface level.
- Four fixed raising heights; 30, 40, 50 & 60mm.
- No special tools or skill required for installation.
- Significantly reduces time taken to raise ironwork.

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



#### **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,

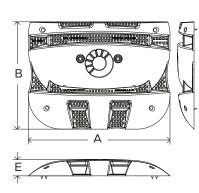
Customised colour scheme.

Notes: Secured in place with M16 Allen bolts.

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.

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

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	DMT0D4/6060/KT	600 x 600 x 100	Tristar D400 manhole cover	Neoprene (x4), bolt (x2), nut (x2), washer (x2)
ARMMSHELL/6060	DMT0D6/6060/KT	600 x 600 x 150	Tristar D400 manhole cover	Neoprene (x4), bolt (x2), nut (x2), washer (x2)
ARMMSHELL/6767	DMT0D4/6767/KT	675 x 675 x 100	Tristar D400 manhole cover	Neoprene (x4), bolt (x2), nut (x2), washer (x2)
ARMMSHELL/6767	DMT0D6/6767/KT	675 x 675 x 150	Tristar D400 manhole cover	Neoprene (x4), bolt (x2), nut (x2), washer (x2)
ARMMSHELL/6060	DMT0D4/6060/KH	600 x 600 x 100	Highway D400 manhole cover	Neoprene (x4), bolt (x2), nut (x2), washer (x2)
ARMMSHELL/6060	DMT0D6/6060/KH	600 x 600 x 150	Highway D400 manhole cover	Neoprene (x4), bolt (x2), nut (x2), washer (x2)
ARMMSHELL/6767	DMT0D4/6767/KH	675 x 675 x 100	Highway D400 manhole cover	Neoprene (x4), bolt (x2), nut (x2), washer (x2)
ARMMSHELL/6767	DMT0D6/6767/KH	675 x 675 x 150	Highway D400 manhole cover	Neoprene (x4), bolt (x2), nut (x2), washer (x2)

<sup>\*</sup>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, homogenous 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.



#### installation 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**<sup>™</sup>



YPCR/U25



Mortar (standard)



#### 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

25

Unipak cures rapidly, in as little as 30 minutes.

STOCK CODE	UNIFORM ADJUSTMENT PLATES	SIZE (mm)
PC/UNIPAK/151076	Adjustment plate 1A	760 x 100 x 15
PC/UNIPAK/151576	Adjustment plate 2B	760 x 150 x 15
PC/UNIPAK/251076	Adjustment plate 3C	760 x 100 x 25
PC/UNIPAK/251576	Adjustment plate 4A	760 x 150 x 25
PC/UNIPAK/451076	Adjustment plate 5B	760 x 100 x 45
PC/UNIPAK/451576	Adjustment plate 6C	760 x 150 x 45
STOCK CODE	UNIFORM SUPPORT WEDGES	SIZE (mm)
PC/UNIWEDGE/755012	Support wedge	120 x 50 x 75
STOCK CODE	UNIPAK MORTAR	TUB PACKING (kg)
YPCR/U6.5	Mortar (standard)	6.5
YPCR/U12.5	Mortar (standard)	12.5



#### **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**<sup>™</sup>



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/HEAVY



KEYS/LONG

STOCK CODE	DESCRIPTION	DESIGN	LENGTH (mm)
KEYS/L	Multi-cover Lifting Key	Cross - Light/Heavy duty	128
KEYS/HEAVY	Heavy Duty Lifting Key	Loop - Heavy Duty	171
KEYS/LONG	Heavy Duty Long Lifting Key	Loop - Heavy Duty	566



#### **SEAL PLATES**



Seal plates compatible with all E600 and select D400 references.

#### Compatible with:

#### Unite E600

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

DMT	OD6.	/6060	/KUF

Unite D400

STOCK CODE	DESCRIPTION	DIMENSIONS (mm)
DEUESP/6060/LL	Low leak sealing plate with elastomer gasket seal and drilled hole	600 x 600
DEUESP/6767/LL	Low leak sealing plate with elastomer gasket seal and drilled hole	675 x 675
DEUESP/6060/NL	No leak sealing plate with elastomer gasket seal	600 x 600
DEUESP/6767/NL	No leak sealing plate with elastomer gasket seal	675 x 675

#### **REDUCER RING**





Used as a place-in-frame, singlecomponent 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

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



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