

UTILITY CASTINGS RANGE PRODUCT SPECIFICATION GUIDE



PRODUCT SPECIFICATION GUIDE

WELCOME

The new TD Foundry Utility Castings Range Product Specification Guide, has been designed to provide an easy to use overview and technical specifications for our products.

TD Foundry provides a comprehensive portfolio of castings and is able to call upon unrivalled expertise in design, development and manufacturing.

Having been a foundry since 1920, we also have the technical know how to identify and work with market-leading overseas foundries. We partner with these to source high quality larger castings which are outside of the scope of our production.

THE TD FOUNDRY DIFFERENCE A UNIQUELY FLEXIBLE, PEOPLE DRIVEN ORGANISATION

- Foundry in the UK since 1920
- Family owned and managed business
- Experienced and award winning management teams
- Investing heavily in the latest state-of-the-art technology
- Exceptional quality control is employed throughout the business
- Advanced processes to offer assured casting integrity
- Castings comply 100% with British Standards; exceeding EU and KM standards
- Financially stable source of supply
- Heavy duty manhole covers and drain grates that are guaranteed to pass the required load tests
- Commitment to quality; offering on-site testing of customers existing castings free of charge to allow comparison of performance
- Disamatic, Kunkel Wagner and airset moulding lines provide the ability to select the perfect platform for each casting product

Our extensive expertise, state-of-the-art technology and exceptional quality control enable the TD Foundry range to be specified with confidence.

Get in touch with our dedicated specification team at: foundrysales@thomasdudley.co.uk













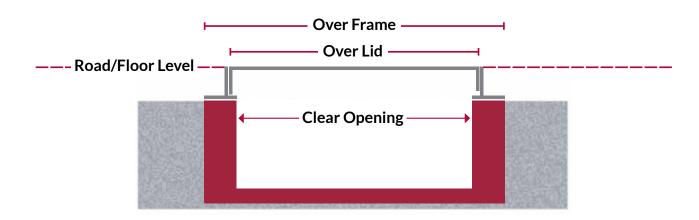
4	FINDING THE RIGHT PRODUCT
5	STANDARDS AND LOAD CLASSES
7	CAN YOUR CASTINGS HANDLE THE PRESSURE
8	BETTER YOUR DESIGNS
10	UNIQUE FEATURES OF THOMAS DUDLEY
	11 PATENTED - VERTICAL DROP-IN
12	GULLY GRATES AND FRAMES
	13 B125KM 14 C250KM
15	SINGLE GRATINGS AND FRAMES
	16 C250KM 17 D400KM
19	DOUBLE TRIANGULAR GRATINGS AND FRAMES
	20 D400KM 21 E600KM 22 F900KM
23	SINGLE PIECE AND SOLID TOP COVERS AND FRAMES
	24 B125KM 25 D400KM
26	DOUBLE TRIANGULAR COVERS AND FRAMES
	27 D400KM 28 E600KM 29 F900KM
30	MULTI-PART DOUBLE TRIANGULAR COVERS AND
	FRAMES
	31 D400KM 32 E600KM 33 F900KM
34	DROP-IN DOUBLE TRIANGULAR COVERS, GRATES
	AND FRAMES
36	TD FOUNDRY INVINCIBLE RANGE
38	RECESSED COVERS AND FRAMES
40	OTHER DRAINAGE CASTINGS AND TOOLS
46	SURFACE BOXES
49	KERBDRAIN

FINDING THE RIGHT PRODUCT

Designs vary between manufacturers and are often changed, so you cannot simply replace the lid of a broken or missing cover, as you will have difficulty finding a lid to fit an existing frame.

We work on what is known as the "clear opening" size. This is the size of the hole you wish to cover i.e. the hole in the cover slab or internal measurement of the brick or plastic chamber. Other dimensions such as the lid or frame dimensions can vary between manufacturers. The clear opening is always the same.

For gully grates - we need to know the size of the gully pot you are planning on using.



STANDARDS AND LOAD CLASSES

There are three main third party standards which apply to utility castings and determine key criteria, such as load bearing ability.

These are:

Level 1. European Standard BS EN 124-2:2015

Level 2. British Standards Institute (BSI) 'Kitemark'

Level 3. Highways Authority CD534







CERTIFIED BY BSI



COMPLIES WIT CD534

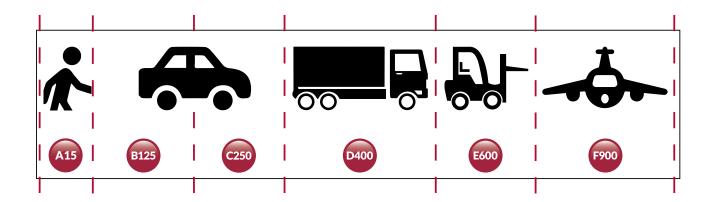
EUROPEAN STANDARD BS EN 124-2:2015.

Access covers and gully grates installed in the UK should meet the requirements of the European Standard BS EN 124-2:2015.

This standard divides access covers and gully grates into a number of classes by static test load. It also categorises the various places where they may be installed from Group 1, the least demanding environment, through to Group 6, the most demanding. It provides guidance on the minimum class to be used against each installation group.

STANDARDS AND LOAD CLASSES

The table below explains how weight loadings work, however, if you are still unsure of what you need then please give us a call and we will be happy to talk through your requirements.



A15	Areas which can only be used by pedestrians and cyclists.
B125	Footways, pedestrian and comparable areas, car parks or car parking decks.
C250	For gully tops installed in the area of kerbside channels of roads which when measured from the kerb edge, extend a maximum of 0.5m into the carriageway and a maximum of 0.2m into the footway.
D400	Carriageways or roads (including pedestrian streets), hard shoulders and parking areas, for all types of road vehicles.
E600	Areas imposing high wheel loads, e.g. docks, aircraft pavements.
F900	Areas imposing particularly high wheel loads, e.g. aircraft pavements.

Group 1: Minimum Class A15

Access covers and gratings capable of withstanding a 15kN test load. For use in areas where only pedestrians have access.

Group 2: Minimum Class B125

Access covers and gratings capable of withstanding a 125kN test load. For use in car parks and pedestrian areas where only occasional vehicular access is likely.

Group 3: Minimum Class C250

Access covers and gratings capable of withstanding a 250kN test load. For use in car parks, forecourts, industrial sites and areas with slow moving traffic also in highway locations up to 500mm from the kerb and up to 200mm into the verge, excluding motorways.

Group 4: Minimum Class D400

Access covers and gratings capable of withstanding a 400kN test load. For use in areas where cars and lorries have access, including carriageways, hard shoulders and pedestrian areas.

Group 5: Minimum Class E600

Access covers and gratings capable of withstanding a 600kN test load. For use in areas where high wheel loads are imposed such as loading areas, docks or aircraft pavements.

Group 6: Minimum Class F900

Access covers and gratings capable of withstanding a 900kN test load. For use in areas where particularly high wheel loads are imposed such as aircraft pavements.

STANDARDS AND LOAD CLASSES

BSI KITEMARK CERTIFICATION

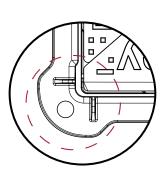
The BSI Kitemark BS 7903:1997 applies to products up to 1000mm c/o, as defined by EN 124-2 (see page 4). As a guide, the BSI standard is around 10% higher than BS EN 124-2.

HIGHWAYS AUTHORITY REGULATION CD534 (FORMALLY HA 104/09)

The Highways Authority provides additional guidelines for road chamber top and gully top installations in trunk roads and motorways. These more rigorous requirements are intended to meet the demands of heavily trafficked areas and high tonnage commercial vehicles. The requirements include:

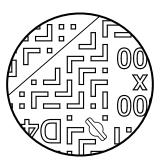
- Grade E600 shall be specified in all applications subjected to over 1,500 commercial vehicles per day.
- Minimum polished skid resistance value (PSRV) >60 in all high risk sites.
- 150mm frame depth.
- Depth of insertion to be no less than 80mm.

Led by these regulations, TD Foundry not only has our Invincible range, which complies fully with the CD534 regulations, but all our covers and grates, rated D400 and above, have been designed with the following features, to ensure all our products are designed to a high specification -



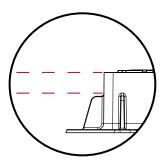
1

Increased bearing pressure of the frame.



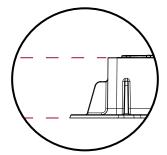
2

Anti-skid tread pattern provides skid resistance of 78 PSRV, suitable in high risk areas.



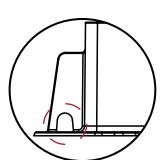
3

Gussets below the top of the frame by at least **25mm** and conform to BS7903.



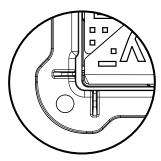
4

Frames fitted in trunk roads and motorways should be at least **150mm deep.**



5

Balanced lifting incorporated into frames which are heavier than **15Kg**.



6

Frames allow for a higher level of mortar adhesion.

CAN YOUR CASTINGS HANDLE THE PRESSURE?

MARKET-LEADING CASTINGS THAT EXCEED EUROPEAN AND KM STANDARDS

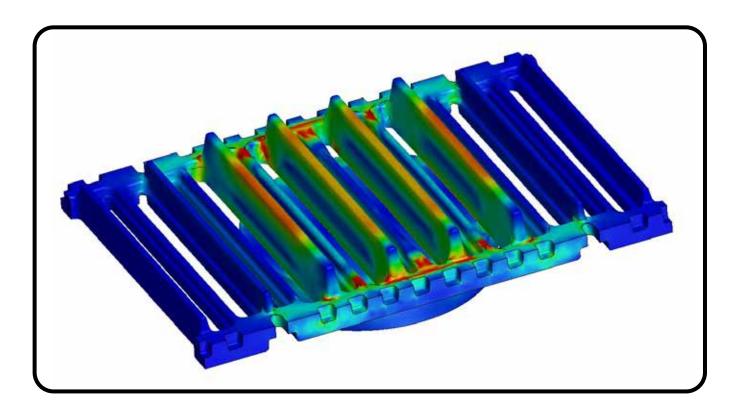
TD Foundry castings are manufactured to provide assured performance. Unlike many inferior products that break at loads far below those specified by British Standards, our heavy duty manhole covers and drain grates are guaranteed to 100% pass the required load tests. We're so committed to quality that we'll even test your existing castings free of charge to allow you to see how our castings compare.



BETTER BY DESIGN

TD Foundry utility castings are engineered to deliver assured quality and performance.

Our vastly experienced UK team has employed state-of-the-art design and development technology to produce a range of castings that incorporates a host of innovative features. Many of these features are patent protected and help to make castings quicker, easier and safer to install and use.



In addition, our manhole covers, gratings and surface boxes are up to 25% lighter than their traditional counterparts. Here, our ground-breaking designs have enabled casting weight to be reduced without compromising strength and durability.

Instead, TD Foundry engineers have taken time to design castings that offer assured performance and not only comply fully with, but exceed British Standards. Stress testing simulation software has been used to pro-actively strengthen those parts of a casting that are subjected to most pressure in the field. We have also developed robust testing methodologies and are the only UK foundry to undertake testing in accordance with BS EN 124 - 2.

We have the expertise to re-engineer existing customer castings. These can be tested free of charge to establish whether they comply with British Standards. We can then reconfigure designs to improve performance whilst reducing weight and costs

BEFORE





AFTER



UNIQUE FEATURES OF TD FOUNDRY



UK designed castings, quality assured and Kitemarked



Flexibility and design expertise



Next day despatch / collection



TD Foundry Invincible range is fully CD534 compliant and all D400 loadings and above are specified fully flanged and covers have 80mm min depth of insertion



Patented unique design features; interference hinge for gratings and lift out hinge for covers, providing superior stability, quiet operation and safer operation



Free load testing available; we are one of the the only Foundries in the UK that can test to BS EN 124-2:2015

PATENTED

VERTICAL DROP-IN



- ✓ Patented unique design features; Vertical drop-in covers providing 135° hinging giving superior site safety and one man operation for virtually all sizes
- Option to remove covers completely provides additional safety for man entry requirements



GULLY GRATINGS & FRAMES

FLAT AND DISHED



FEATURES INC IN THE RANGE





CERTIFIED BY BSI

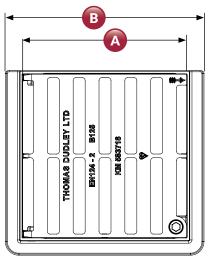


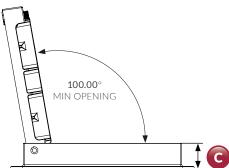
HINGE



B125KM DUCTILE IRON HINGED GULLY GRATING & FRAME







KEY FEATURES







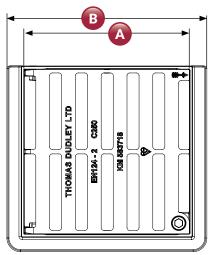


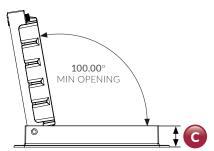
- Complies fully with
 BS EN 124-2:2015
 Standard suitable for
 intensity of traffic in Class
 B125 applications
- Engineered from quality assured ductile iron
- Tight fit, non rattle interference hinge
- Secure, tamper-proof lock and non-lock versions

CLEAR OPENING (A) MM	OVER FRAME (B) MM	TYPE	FLANGE DESIGN	DEPTH (C) MM	WATERWAY	LOCK	STYLE	CODE
225 x 225	290 x 264	GULLY GRATE	3 - SIDE	50	242CM ²		FLAT	333009
225 x 225	290 x 264	GULLY GRATE	3 - SIDE	50	242CM ²	~	FLAT	334558
225 x 225	290 x 264	GULLY GRATE	3 - SIDE	50	244CM ²		DISHED	332131
225 x 225	290 x 264	GULLY GRATE	3 - SIDE	50	244CM ²	~	DISHED	334559
300 x 300	365 x 339	GULLY GRATE	3 - SIDE	50	400CM ²		FLAT	333615
300 x 300	365 x 339	GULLY GRATE	3 - SIDE	50	400CM ²	~	FLAT	334560
300 x 300	365 x 339	GULLY GRATE	3 - SIDE	50	402CM ²		DISHED	332133
300 x 300	365 x 339	GULLY GRATE	3 - SIDE	50	402CM ²	~	DISHED	334561

C250KM DUCTILE IRON HINGED GULLY GRATING & FRAME







KEY FEATURES









- Complies fully with
 BS EN 124-2:2015
 Standard- suitable for
 intensity of traffic in
 Class C250 applications
- Engineered from quality assured ductile iron
- Tight fit, non rattle interference hinge
- Secure, tamper-proof lock and non-lock versions

CLEAR OPENING (A) MM	OVER FRAME (B) MM	TYPE	FLANGE DESIGN	DEPTH (C) MM	WATERWAY	LOCK	STYLE	CODE
225 x 225	290 x 264	GULLY GRATE	3 - SIDE	50	239CM²		FLAT	333613
225 x 225	290 x 264	GULLY GRATE	3 - SIDE	50	239CM ²	~	FLAT	334562
225 x 225	290 x 264	GULLY GRATE	3 - SIDE	50	236CM ²		DISHED	333611
225 x 225	290 x 264	GULLY GRATE	3 - SIDE	50	236CM ²	~	DISHED	334563
300 x 300	365 x 339	GULLY GRATE	3 - SIDE	50	403CM²		FLAT	333584
300 x 300	365 x 339	GULLY GRATE	3 - SIDE	50	403CM²	~	FLAT	334564
300 x 300	365 x 339	GULLY GRATE	3 - SIDE	50	399CM ²		DISHED	332798
300 x 300	365 x 339	GULLY GRATE	3 - SIDE	50	399CM ²	~	DISHED	334565

SINGLE GRATINGS & FRAMES FLAT AND DISHED



FEATURES INC IN THE RANGE



COMPLIES WITH BS EN 124-2



INTERFERENCE HINGE



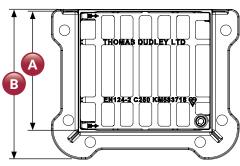
LOCK & NON-LOCK **VERSIONS**



CERTIFIED BY BSI

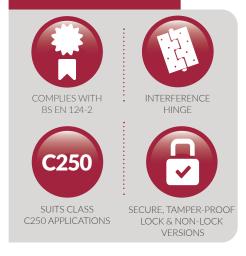
C250KM DUCTILE IRON HINGED GRATING & FRAME







KEY FEATURES

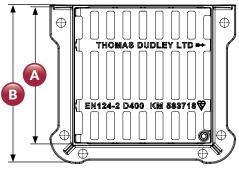


- ✓ Complies fully with BS EN 124-2:2015 Standard-suitable for intensity of traffic in Class C250 applications
- Engineered from quality assured ductile iron
- ☑ Tight fit, non rattle interference hinge
- Secure, tamper-proof lock and non-lock versions

CLEAR OPENING (A) MM	OVER FRAME (B) MM	TYPE	FLANGE DESIGN	DEPTH (C) MM	WATERWAY	LOCK	STYLE	CODE
340 x 310	494 x 394	GRATE & FRAME	3 - SIDE	75	602CM²		FLAT	330830
340 x 310	494 x 394	GRATE & FRAME	3 - SIDE	75	602CM ²	~	FLAT	330973

D400KM DUCTILE IRON HINGED GRATING & FRAME







KEY FEATURES



BS EN 124-2



SUITS CLASS D400 APPLICATIONS



INTERFERENCE

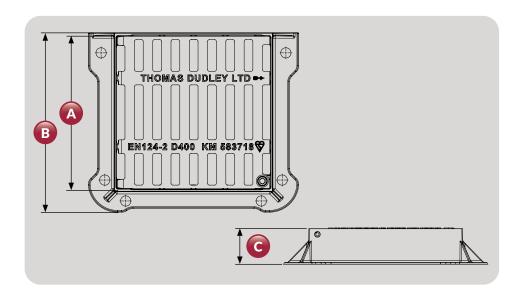


SECURE, TAMPER-PROOF LOCK & NON-LOCK VERSIONS

- ✓ Complies fully with BS EN 124-2:2015 suitable for intensity of traffic in Class D400 applications
- Engineered from quality assured ductile iron
- All tight fit, non rattle interference hinged (inc double triangular non-rock) as standard
- Available with secure, tamper-proof lock and non-lock versions

*CLEAR OPENING (A) MM	OVER FRAME (B) MM	TYPE	FLANGE DESIGN	DEPTH (C) MM	WATERWAY	LOCK	STYLE	CODE
365 x 310	519 x 395	GRATE & FRAME	3 - SIDE	100	400CM ²	~	FLAT	330976
365 x 310	519 x 395	GRATE & FRAME	3 - SIDE	100	400CM ²		FLAT	330829
390 x 315	540 x 466	GRATE & FRAME	4 - SIDE	100	730CM ²		FLAT	334566
390 x 315	540 x 466	GRATE & FRAME	4 - SIDE	100	730CM ²	~	FLAT	334230
390 x 315	540 x 466	GRATE & FRAME	4 - SIDE	100	740CM ²		DISHED	334567
390 x 315	540 x 466	GRATE & FRAME	4 - SIDE	100	740CM ²	~	DISHED	334175

D400KM DUCTILE IRON HINGED GRATING & FRAME CONTINUED





CLEAR OPENING (A) MM	OVER FRAME (B) MM	TYPE	FLANGE DESIGN	DEPTH (C) MM	WATERWAY	LOCK	STYLE	CODE
420 x 420	574 x 490	GRATE & FRAME	3 - SIDE	100	900CM ²		FLAT	330826
420 x 420	574 x 490	GRATE & FRAME	3 - SIDE	150	900CM ²		FLAT	332672
420 x 420	574 x 490	GRATE & FRAME	3 - SIDE	100	900CM ²	~	FLAT	333836
420 x 420	574 x 490	GRATE & FRAME	3 - SIDE	150	900CM ²	~	FLAT	334568
420 x 420	574 x 490	PEDESTRIAN MESH	3 - SIDE	100	517CM ²		FLAT	332476
420 x 420	574 x 490	PEDESTRIAN MESH	3 - SIDE	150	517CM ²		FLAT	334569
420 x 420	574 x 490	PEDESTRIAN MESH	3 - SIDE	100	517CM ²	~	FLAT	334608
420 x 420	574 x 490	PEDESTRIAN MESH	3 - SIDE	150	517CM ²	~	FLAT	334571
420 x 420	574 x 490	INCREASED WATERWAY	3 - SIDE	100	1243CM²		FLAT	333714
420 x 420	574 x 490	INCREASED WATERWAY	3 - SIDE	150	1243CM²		FLAT	334572
420 x 420	574 x 490	INCREASED WATERWAY	3 - SIDE	100	1243CM²	~	FLAT	333711
420 x 420	574 x 490	INCREASED WATERWAY	3 - SIDE	150	1243CM ²	~	FLAT	333823
430 x 370	574 x 505	GRATE & FRAME	3 - SIDE	100	815CM ²		FLAT	330827
430 x 370	574 x 505	GRATE & FRAME	3 - SIDE	100	815CM ²	~	FLAT	332765

DOUBLE TRIANGULAR GRATINGS AND FRAMES



FEATURES INC IN THE RANGE







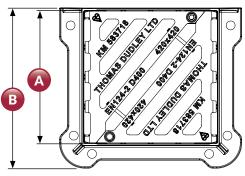
INTERFERENCE HINGE



LOCK & NON-LOCK VERSIONS

D400KM DUCTILE IRON HINGED DOUBLE TRIANGULAR GRATING & FRAME







KEY FEATURES



COMPLIES WITH BS FN 124-2



SUITS CLASS D400 APPLICATIONS



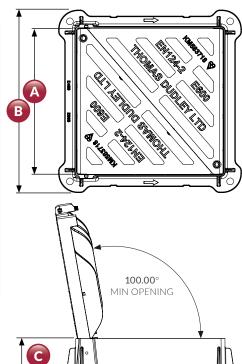
INTERFERENCE HINGE

- Complies fully with BS EN 124-2:2015 suitable for intensity of traffic in Class D400 applications
- Engineered from quality assured ductile iron
- All tight fit, non rattle interference hinged (inc double triangular non-rock) as standard
- Available with secure, tamper-proof lock and non-lock versions
- ✓ Increased waterway available
- Lift out covers for 600 x 600 and above, providing 135° hinging giving superior site safety and one man operation

CLEAR OPENING (A) MM	OVER FRAME (B) MM	TYPE	FLANGE DESIGN	DEPTH (C) MM	WATERWAY	LOCK	STYLE	CODE
420 x 420	590 x 460	GRATE & FRAME	3 - SIDE	100	716CM ²		FLAT	330828
420 x 420	590 x 460	GRATE & FRAME	3 - SIDE	100	716CM ²	~	FLAT	333692
450 x 450	604 x 535	GRATE & FRAME	3 - SIDE	100	900CM ²		FLAT	331307
450 x 450	604 x 535	GRATE & FRAME	3 - SIDE	100	900CM ²	~	FLAT	334573
450 x 450	604 x 535	GRATE & FRAME	3 - SIDE	150	900CM ²		FLAT	373776
450 x 450	604 x 535	GRATE & FRAME	3 - SIDE	150	900CM ²	~	FLAT	374316
600 x 600	753 x 753	INCREASED WATERWAY	4 - SIDE	100	2500CM ²	~	FLAT	333018
600 x 600	753 x 753	INCREASED WATERWAY	4 - SIDE	150	2500CM ²	~	FLAT	334575

E600KM DUCTILE IRON HINGED DOUBLE TRIANGULAR GRATING & FRAME





KEY FEATURES



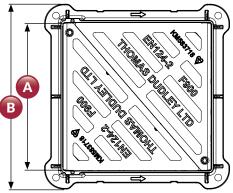


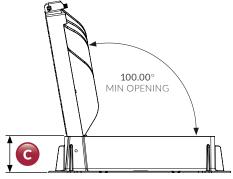
- Complies fully with BS EN 124-2:2015 suitable for intensity of traffic in Class E600 applications
- Engineered from quality assured ductile iron
- All tight fit, non rattle interference hinged (inc double triangular non-rock) as standard
- Available with secure, tamper-proof lock and non-lock versions
- Lift out covers providing 135° hinging giving superior site safety and one man operation

CLEAR OPENING (A) MM	OVER FRAME (B) MM	TYPE	FLANGE DESIGN	DEPTH (C) MM	WATERWAY	LOCK	STYLE	CODE
600 x 600	754 x 754	GRATE & FRAME	4 - SIDE	150	1048CM²	~	FLAT	334576
600 x 600	754 x 754	GRATE & FRAME	4 - SIDE	150	1048CM²		FLAT	334326
450 x 450	630 x 630	GRATE & FRAME	4 - SIDE	150	724CM ²		FLAT	372077

F900KM DUCTILE IRON HINGED DOUBLE TRIANGULAR GRATING & FRAME







KEY FEATURES





SUITS CLASS F900 APPLICATIONS



INTERFERENCE HINGE

- Complies fully with BS EN 124-2:2015 suitable for intensity of traffic in Class F900 applications
- Engineered from quality assured ductile iron
- All tight fit, non rattle interference hinged (inc double triangular non-rock) as standard
- Available with secure, tamper-proof lock and non-lock versions
- Lift out covers providing 135° hinging giving superior site safety and one man operation

CLEAR OPENING (A) MM	OVER FRAME (B) MM	TYPE	FLANGE DESIGN	DEPTH (C) MM	WATERWAY	LOCK	STYLE	CODE
600 x 600	754 x 754	GRATE & FRAME	4 - SIDE	150	1048CM²	~	FLAT	334577
600 x 600	754 x 754	GRATE & FRAME	4 - SIDE	150	1048CM ²		FLAT	334327
450 x 450	630 x 630	GRATE & FRAME	4 - SIDE	150	724CM ²		FLAT	372078

SINGLE PIECE / SOLID TOP COVERS AND FRAMES



FEATURES INC IN THE RANGE



BS EN 124-2



CERTIFIED BY BSI



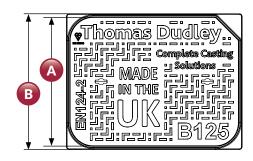
SLIP RESISTANT



SNAPLOCK FEATURE

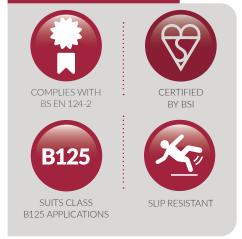
B125KM DUCTILE IRON SOLID TOP COVER & FRAME







KEY FEATURES

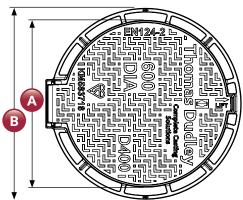


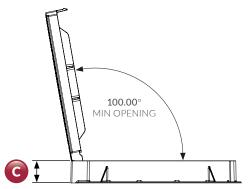
CLEAR OPENING (A) MM	OVER FRAME (B) MM	DEPTH (C) MM	CODE
300 x 300	368 x 368	40	333608
320 DIA	410 DIA	50	334390
450 x 450	518 x 518	40	332754
450 x 450	515 x 515	70	334395
*450 DIA (A15KM)	550 DIA (A15KM)	50 (A15KM)	330825 (334392)
450 DIA	550 DIA	40	330825
600 x 450	662 x 512	40	330824
600 x 600	668 x 668	40	330934
600 DIA	700 x 700	75	330944
675 x 675	737 x 737	40	330935
750 x 450	818 x 550	50	332600
750 x 600	818 x 668	40	330939
750 x 750	811 x 811	40	330936
900 x 600	968 x 668	40	330938
900 x 900	968 x 968	40	330937
1000 x 750	1180 x 820	50	PLEASE ENQUIRE

- Complies fully with BS EN 124-2:2015
- Engineered from quality assured ductile iron
- Unique, slip resistant Thomas Dudley drain covers tread pattern

D400KM VERTICAL DROP-IN DUCTILE IRON COVER & FRAME







KEY FEATURES









- Complies fully with BS EN 124-2:2015 Standard - suitable for intensity of traffic in Class D400 applications
- Engineered from quality assured ductile iron
- Unique, slip resistant Thomas Dudley heavy duty drain covers tread pattern
- One piece Gripfix lid
- Snap-lock feature for added security
- Lift out covers for 600 dia, providing 135° hinging giving superior site safety and one man operation
- Full 360° seal for 600 dia

CLEAR OPENING (A) MM	OVER FRAME (B) MM	DEPTH (C) MM	GRIPFIX	SNAP LOCK	CODE
600 x 450	700 x 550	100	~		330822
600 dia Circular Flange	768 x 750	100		~	370717
600 dia Square Flange	767 x 682	100		~	333015

VERTICAL DROP-IN DOUBLE TRIANGULAR COVERS & FRAMES



FEATURES INC IN THE RANGE



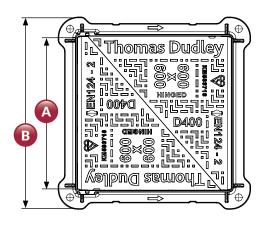




SLIP RESISTANT

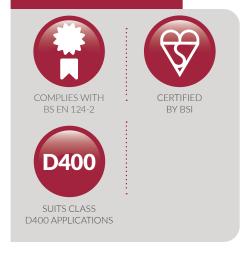
D400KM DUCTILE IRON VERTICAL DROP-IN DOUBLE TRIANGULAR COVER & FRAME







KEY FEATURES

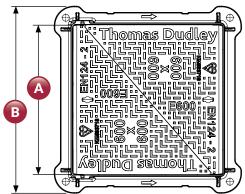


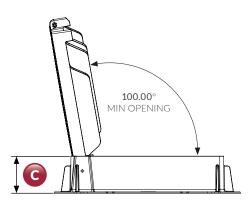
CLEAR OPENING (A) MM	OVER FRAME (B) MM	DEPTH (C) MM	CODE
450 x 450	600 x 600	100	332748
600 x 450	750 x 600	100	330987
600 x 600	750 x 750	100	330823
600 x 600	750 x 750	150	330926
675 x 675	825 x 825	100	330927
675 x 675	825 x 825	150	330928
750 x 600	900 x 750	100	330940
750 x 750	900 x 900	100	330929
900 x 600	1050 x 750	100	330941
900 x 900	1050 x 1050	100	330930

- ✓ Complies fully with BS EN 124-2:2015 suitable for intensity of traffic in Class D400 applications
- Engineered from quality assured ductile iron
- Unique, slip resistant Thomas Dudley heavy duty drain covers tread pattern
- Hinged as standard
- Hinged double triangular non-rock cover complying to one man lift manual handling regulations
- Lift out covers providing 135° hinging, giving superior site safety and one man operation

E600KM DUCTILE IRON VERTICAL DROP-IN DOUBLE TRIANGULAR COVER & FRAME







KEY FEATURES





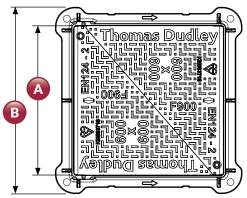


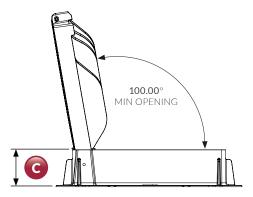
- Complies fully with BS EN 124-2:2015 suitable for intensity of traffic in Class E600 applications
- Engineered from quality assured ductile iron
- Unique, slip resistant Thomas Dudley drain covers tread pattern
- ➡ Hinged Double triangular non-rock cover complying to one man lift manual handling regulations
- Lift out covers providing 135° hinging giving superior site safety and one man operation

CLEAR OPENING (A) MM	OVER G FRAME DEPTH (B) MM (C) MM		CODE	
450 x 450	600 x 600	150	334401	
600 x 600	750 x 750	150	334324	
675 x 675	830 x 830	150	334325	

F900KM DUCTILE IRON VERTICAL DROP-IN DOUBLE TRIANGULAR COVER & FRAME







KEY FEATURES







- Complies fully with BS EN 124-2:2015 suitable for intensity of traffic in Class F900 applications
- Engineered from quality assured ductile iron
- Unique, slip resistant Thomas Dudley heavy duty drain covers tread pattern
- ✓ Hinged Double triangular non-rock cover complying to one man lift manual handling regulations
- ✓ Lift out covers providing 135° hinging giving superior site safety and one man operation
- Other sizes available to order

CLEAR OPENING (A) MM	OVER FRAME (B) MM	DEPTH (C) MM	CODE
450 x 450	600 x 600	150	334402
600 x 600	700 x 750	150	334275
675 x 675	830 x 830	150	334323
900 x 900	1054 x 1051	150	334828

MULTI-PART TRIANGULAR COVERS AND FRAMES



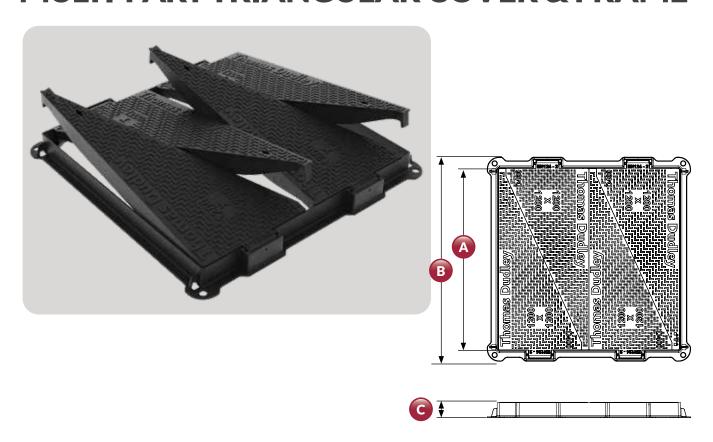
Features & Benefits







D400KM DUCTILE IRON VERTICAL DROP-IN MULTI-PART TRIANGULAR COVER & FRAME



KEY FEATURES



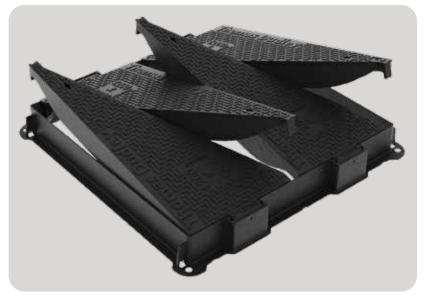


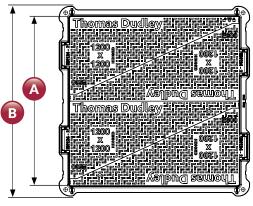


- Complies fully with BS EN 124-2:2015 suitable for intensity of traffic in Class D400 applications
- Engineered from quality assured ductile iron
- Unique, slip resistant Thomas Dudley heavy duty drain covers tread pattern
- Hinged and lift out as standard
- Non-rock cover complying to one man lift manual handling regulations, multi leaf
- Master and Slave with single locking point as standard
- Other sizes available to order

CLEAR OPENING (A) MM	OVER FRAME (B) MM	DEPTH (C) MM	CODE
1000 x 1000	1150 x 1150	100	330931
1200 x 900	1350 x 1050	100	330932
1200 x 1200	1350 x 1350	100	330933
1220 x 675	1370 x 825	100	330942
1220 x 675	1370 x 825	150	330943
1200 x 750	1350 x 902	100	372757

E600KM DUCTILE IRON VERTICAL DROP-IN MULTI-PART TRIANGULAR COVER & FRAME







KEY FEATURES





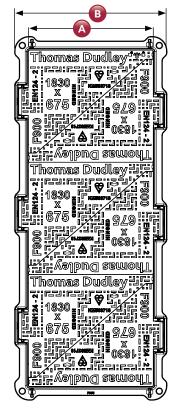


- ✓ Complies fully with BS EN 124-2:2015 suitable for intensity of traffic in Class E600 applications
- Engineered from quality assured ductile iron
- Unique, slip resistant Thomas Dudley drain covers tread pattern
- Hinged Double triangular non-rock cover complying to one man lift manual handling regulations, multi
- ✓ Master and Slave with single locking point as standard
- Other sizes available to order

CLEAR OPENING (A) MM	OVER FRAME (B) MM	DEPTH (C) MM	CODE
1000 x 1000	1150 x 1150	150	334398
1200 x 900	1350 x 1050	150	334413
1200 x 1200	1350 x 1350	150	333019
1500 x 750	1650 x 900	150	333020
1500 x 900	1650 x 1050	150	333017
1500 x 1500	1650 x 1650	150	332368
1830 x 675	1980 x 825	150	332162

F900KM DUCTILE IRON VERTICAL DROP-IN MULTI-PART TRIANGULAR COVER & FRAME







KEY FEATURES



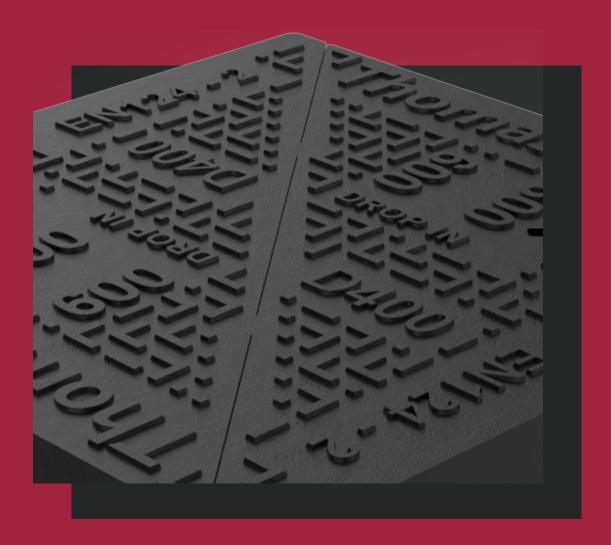




- Complies fully with BS EN 124-2:2015 suitable for intensity of traffic in Class F900 applications
- Engineered from quality assured ductile iron
- Unique, slip resistant Thomas Dudley drain covers tread pattern
- ✔ Hinged Double triangular non-rock cover complying to one man lift manual handling regulations, multi leaf
- Master and Slave with single locking point as standard
- Other sizes available to order
- Lift out covers providing 135° hinging giving superior site safety and one man operation

CLEAR OPENING (A) MM	OVER FRAME (B) MM	DEPTH (C) MM	CODE
1000 x 1000	1155 x 1150	150	334399
1200 x 900	1350 x 1055	150	334414
1200 x 1200	1355 x 1350	150	334400
1500 x 900	1650 x 1050	150	372032
1500 x 1500	1650 x 1650	150	372033
1830 x 675	1980 x 830	150	334583

DROP-IN DOUBLE TRIANGULAR COVERS, GRATES AND FRAMES



Features & Benefits

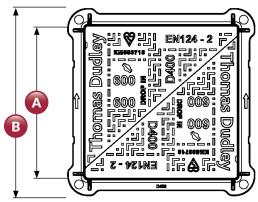


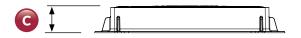




D400KM DUCTILE IRON DROP-IN DOUBLE TRIANGULAR COVER/GRATE & FRAME







KEY FEATURES







- Complies with BS EN 124-2:2015 suitable for intensity of traffic in Class D400 applications
- Engineered from quality assured ductile iron
- Unique, slip resistant Thomas Dudley heavy duty drain covers tread pattern
- Drop-in, loose coupled, double triangular covers
- Non-rock cover

CLEAR OPENING (A) MM	OVER FRAME (B) MM	DEPTH (C) MM	COVER OR GRATE	CODE
600 x 600	740 x 740	100	2 PART COVER	334623
600 x 600	740 x 740	150	2 PART COVER	334619
675 x 675	815 x 815	100	2 PART COVER	334625
675 x 675	815 x 815	150	2 PART COVER	334621
1220 x 675	1370 x 830	100	4 PART COVER	373775
1220 x 675	1370 x 830	150	4 PART COVER	372034
1220 x 675	1370 x 830	150	4 PART GRATE - 5140cm² WATERWAY	372035

TD Foundry

VINCIBLE

Range

The **INVINCIBLE** range from TD Foundry has been designed to stand the test of time in very high traffic conditions and with the requirements of Highways England's technical regulation, CD534, at the forefront of our specification.

The CD534 regulation was introduced back in February 2020, as a replacement for the HA104/09 guidance notes, with the intention of guiding installers to the best possible product specifications for installation in trunk roads and motorways.

The TD Foundry **INVINCIBLE** range has been designed to conform to and in many instances exceed the requirements of both EN124-2 and CD534, the products are also Kitemarked to provide additional peace of mind.

Here is a list of key product features and how they perform against the requirements of CD534 –

- Skid resistance value of 78 PSRV This figure vastly exceeds the CD534 minimum requirement of all Group 4 chamber tops to have a PSRV >60 when installed in high risk locations.
- Increased bedding area providing a bearing pressure of 2.05 N/mm² Although CD 534 does not specifically require a more stringent bearing pressure than the 7.5 N/mm² stated in EN124, this was a key requirement in its predecessor, HA104/09, which stated a maximum bearing pressure of 2.1 N/mm². We believe that the lower bearing pressure is key to dispersing stresses and thus reducing the potential damage on bedding materials, especially in high traffic installations and have ensured that our products still meets this specification.
- **E600 Load Class** CD534 now states that **E600** covers should be used in ALL environments where the annual average daily traffic of large goods vehicles exceeds 1500 in each direction.
- Minimum clear opening of 600 x 600 For chamber tops permitting access, CD534 requires a minimum of 600mm clear opening.
- 150mm Frame Depth CD 534 states a minimum frame depth of 150mm for all motorways and all-purpose trunk
- **80mm Depth of Insertion** This meets the CD 534 minimum depth of insertion of **80mm**.
- M16 Coupling Bolts Exceeding the CD 534 requirement of 140mm² minimum cross sectional area of loose

In addition to the requirements of EN124 & CD534, we designed the following features into our **INVINCIBLE** products -

- Cover to frame contact area Increased by 600% This is critical to disperse stresses transferred from cover through the frame and into the bedding material.
- Increased strength Greater strength allowing the product to surpass the load test requirements of both EN124-2 and the Kitemark to give greater peace of mind in high traffic locations.
- Limited movement of the cover in the frame Design features limiting the movement of the cover in situ prevent wear and potential instability of the cover.
- Frame Keying Ribs Provide greater mortar engagement with the frame than a flat surface.

All these features add up to a product that you can install with confidence, even in the busiest locations.

Features & Benefits







COMPLIES WITH RESISTANT

E600 DUCTILE IRON INVINCIBLE RANGE - HIGH TRAFFIC COVER & FRAME



BENEFITS

- Complies fully with BS EN 124-2:2015 and Highways Authority CD534 Standard - suitable for very high intensity traffic applications
- **♥** Engineered from quality assured ductile iron
- Unique, slip resistant tread pattern suitable for High Risk installations
- Orop-in, loose coupled covers
- Non-rock cover

CLEAR OPENING (A) MM	OVER FRAME (B) MM	DEPTH (C) MM	CODE
600 x 600	842 x 842	150	372581
675 x 675	915 x 915	150	372071

RECESSED COVERS AND FRAMES



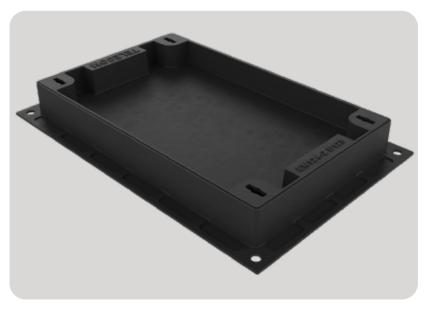
Features & Benefits

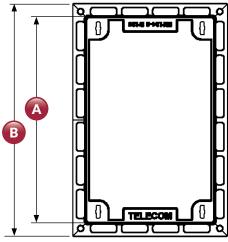






B125 & D400 DUCTILE IRON RECESSEDCOVER & FRAME







KEY FEATURES







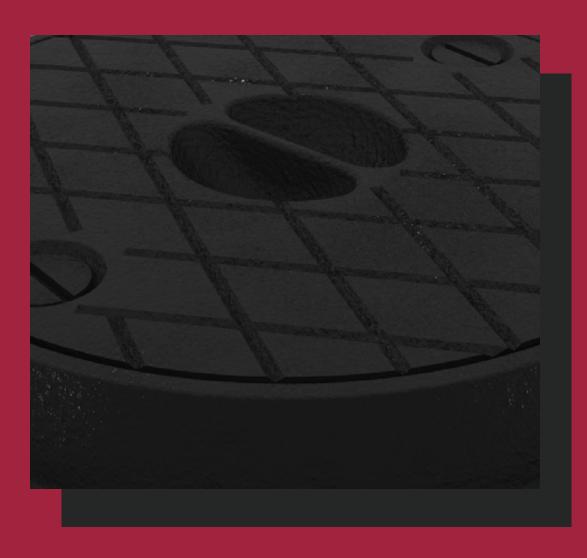
80mm RECESSED TRAY

BENEFITS

- **⊘** Complies fully with BS EN 124-2:2015
- Engineered from quality assured ductile iron
- Drop-in recessed covers
- **⊘** 80mm deep internal recessed tray
- Non-rock cover design

CLEAR OPENING (A) MM	OVER FRAME (B) MM	DEPTH (C) MM	LOAD	CODE
750 x 450	900 x 600	100	B125	PLEASE ENQUIRE
750 x 450	900 x 600	100	D400	PLEASE ENQUIRE
900 x 600	1050 x 750	100	D400	PLEASE ENQUIRE

OTHER DRAINAGE CASTINGS AND TOOLS



RANGE OFFERS









D125 SQUARE DISHED PATTERN GULLY GRIDS



DIMENSION		COATED	GALVANISED	DIMENSION		COATED	GALVANISED
MM	INCHES	CODE	CODE	MM	INCHES	CODE	CODE
114 x 114 x 9	4½ × 4½ × 3/8	314549	318338	165 x 165 x 13	6 ½ x 6 ½ x ½	316946	PLEASE ENQUIRE
120 x 120 x 13	4¾ × 4¾ × ½	314964	314378	178 x 178 x 13	7 x 7 x ½	316566	PLEASE ENQUIRE
127 x 127 x 9	5 x 5 x %	316119	318613	203 x 203 x 13	8 x 8 x ½	316638	318500
152 x 152 x 6	6 x 6 x 1/4	313220	315574	229 x 229 x 13	9 x 9 x ½	314781	318238
152 x 152 x 9	6 x 6 x 3/8	313124	315421	254 x 254 x 13	10 × 10 × ½	314113	316933
152 x 152 x 13	6 x 6 x ½	319469	313501	305 x 305 x 13	12 x 12 x ½	313562	319021
				321 x 321 x 13	12 % × 12 % × ½	317236	318900

D126 ROUND DISHED PATTERN GULLY GRIDS



DIMENSION		COATED	GALVANISED	DIMENSION		COATED	GALVANISED
ММ	INCHES	CODE	CODE	MM	INCHES	CODE	CODE
76 dia. x 9	3 x 3/8	319489	PLEASE ENQUIRE	191 dia. x 9	7 ½ x 3/8	319451	316001
102 dia. x 9	4 × 3/8	318308	317050	197 dia. x 9	7 3/4 × 3/8	315837	PLEASE ENQUIRE
114 dia. x 9	4 ½ × ¾	313172	PLEASE ENQUIRE	203 dia. x 9	8 x 3/8	317052	316369
127 dia. x 9	5 x 3/8	319759	318839	229 dia. x 9	9 x 3/8	314891	317555
140 dia. x 9	5 ½ x ¾	316375	318051	254 dia. x 16	10 × %	318136	317685
152 dia. x 9	6 x 3/8	316960	316175	286 dia. x 9	11 1/4 × 3/8	317657	313369
165 dia. x 9	6 ½ x ¾	319232	316889	305 dia. x 16	12×5/8	315529	316144
178 dia. x 9	7 × 3/8	316725	315983				

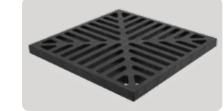
Other sizes available, please enquire

D127 ROUND FLAT STRAIGHT BAR PATTERN GULLY GRIDS



DIMENSION		COATED	GALVANISED	DIMENSION		COATED	GALVANISED
ММ	INCHES	CODE	CODE	MM	INCHES	CODE	CODE
76 dia. x 9	3 × 3/8	317969	PLEASE ENQUIRE	229 dia. x 13	9 x ½	313760	317647
114 dia. x 9	4 ½ × 3/8	PLEASE ENQUIRE	315675	229 dia. x 25	9 x 1	316874	PLEASE ENQUIRE
127 dia. x 9	5 x 3/8	318266	317091	267 dia. x 25	10 ½ × 1	316268	317585
152 dia. x 9	6 × 3/8	314580	314426	286 dia. x 16	11 ¼ × 5/8	PLEASE ENQUIRE	316527
178 dia. x 9	7 × 3/8	313999	316522	286 dia. x 25	11 ¼ × 1	313130	319222
191 dia. x 9	7 ½ × 3/8	315029	316928	305 dia. x 16	12×5%	318570	316122
197 dia. x 9	7 3/4 × 3/8	313628	PLEASE ENQUIRE	305 dia. x 25	12 x 1	PLEASE ENQUIRE	315411
197 dia. x 22	7 3/4 × 7/8	PLEASE ENQUIRE	318859	368 dia. x 25	14 ½ × 1	314535	315232
				381 dia. x 25	15 x 1	PLEASE ENQUIRE	318990

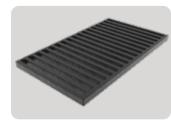
D129 FLAT COBWEB GULLY GRIDS



DIMENSION	COATED	
MM	INCHES	CODE
381 x 381 x 25	15 x 15 x 1	313884

D130 SQUARE AND RECTANGULAR FLAT STRAIGHT BAR PATTERN GULLY GRIDS

DIMENSION		COATED	GALVANISED	DIMENSION		COATED	GALVANISED
MM	INCHES	CODE	CODE	MM	INCHES	CODE	CODE
102 x 102 x 9	4 × 4 × 3/8	318047	314492	229 x 229 x 13	9×9×½	PLEASE ENQUIRE	314781
127 × 127 × 13	5 x 5 x ½	318884	317611	229 x 229 x 25	9x9x1	319642	319378
152 x 152 x 9	6×6×3/8	314606	314325	254 × 254 × 13	10 × 10 × ½	318270	317342
152 × 152 × 25	6x6x1	PLEASE ENQUIRE	317949				
178 × 178 × 13	7 x 7 x ½	PLEASE ENQUIRE	316762				
203 × 203 × 13	8 x 8 x ½	314808	314174				



D131 ROUND FLAT STRAIGHT BAR GULLY GRIDS

DIMENSION		COATED	GALVANISED
MM	INCHES	CODE	CODE
178 dia. x 9	7 × 3/8	318245	PLEASE ENQUIRE

D105 CIRCULAR SEALING PLATES AND FRAMES

DIMENSION		COATED	GALVANISED
MM	INCHES	CODE	CODE
114 x 25	4 ½ × 1	318234	PLEASE ENQUIRE
140 x 25	5 ½ × 1	318258	PLEASE ENQUIRE
191 x 25	7 ½ × 1	315007	314034
273 x 25	10 3/4 × 1	317213	318457



ATTITUDE .

D106 SQUARE AND RECTANGULAR SEALING PLATES AND FRAMES

DIMENSION		COATED	GALVANISED
MM	INCHES	CODE	CODE
152 x 152 x 25	6 x 6 x 1	318071	316523
229 x 229 x 25	9 x 9 x 1	313547	319284
254 x 125 x 25	10 x 6 x 1	PLEASE ENQUIRE	PLEASE ENQUIRE
305 x 305 x 25	12 x 12 x 1	313443	318787



D172 ROUND GULLY GRATINGS AND FRAMES

DIMENSION		COATED	GALVANISED
MM	INCHES	CODE	CODE
140 x 25	5 ½ x 1	319513	314619
197 x 25	7 ¾ × 1	314067	316385
273 x 35	10 3/4 × 1 3/8	315337	318187
368 x 35	14 ½ × 1 ¾	314515	318578



D173 SQUARE GULLY GRATINGS AND FRAMES

DIMENSION		COATED	GALVANISED
MM	INCHES	CODE	CODE
152 x 152 x 25	6 x 6 x 1	314138	319347
229 x 229 x 25	9 x 9 x 1	315324	319586
254 x 254 x 38	10 × 10 × 1 ½	316277	318825
305 x 305 x 38	12 × 12 × 1 ½	316120	316597



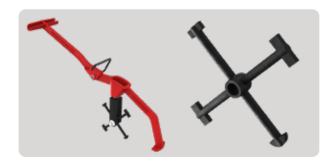
PLASTIC DRAIN GRIDS

DIMENSION		
MM	INCHES	CODE
152 x 152	6×6	314607



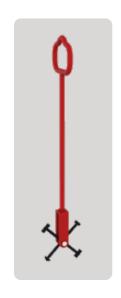
HYDRAFOLD MANHOLE LIFTING TOOLS (PAINTED FINISH)

DESCRIPTION	CODE
HYDRAFOLD LIFTING TOOL	323293
HYDRAFOLD 4 HEAD KEYWHEEL	319826



HYDRA LIFTING TOOL (PAINTED FINISH)

DESCRIPTION	CODE
530MM LONG HANDLE	313100



LIFTING KEYS LIGHT, MEDIUM AND HEAVY DUTY



DESCRIPTION	LENGTH MM	KEYHOLE SIZE MM	CODE
HD3 DUCTILE HEAVY DUTY	300	36 x 8	317006
HD2 STEEL HEAVY DUTY	442	37 x 10	315456
M1 DUCTILE MEDIUM DUTY	125	29 x 9	317796
LD3 GREY IRON LIGHT DUTY	75	24 x 13	314350
LD4 GREY IRON LIGHT DUTY	71	23 x 9	317895

SURFACE BOXES



RANGE OFFERS



SURFACE BOXES



STOP TAP BOXES



BOUNDARY BOXES

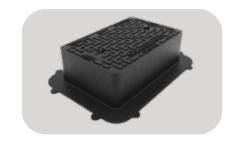


VARIOUS BADGING AVAILABLE

GRIPFIX SURFACE BOXES

EN124-2 D400

GRADE	CLEAR OPENING MM	OVER FRAME MM	DEPTH MM	CODE
D400 (6274)	380 x 230	536 x 385	100	PLEASE ENQUIRE
D400 (6270)	380 x 230	536 x 385	125	PLEASE ENQUIRE
D400	430 x 280	534x 384	100	PLEASE ENQUIRE



GRIPFIX 135AN, 225AN, 300AN COATED SURFACE BOXES

BS5834 Grade A

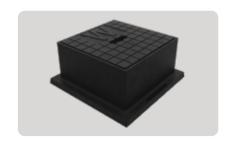
GRADE	CLEAR OPENING MM	OVER FRAME MM	DEPTH MM	CODE
135AN	165 x 165	245 x 245	100	PLEASE ENQUIRE
135AN (SLOTTED)	165 x 165	245 x 245	100	PLEASE ENQUIRE
225AN	230 x 230	307 x 307	100	PLEASE ENQUIRE
300AN	302 x 302	381 x 381	100	PLEASE ENQUIRE



100B2S MEDIUM DUTY COATED SURFACE BOXES

BS5834 Grade B

CLEAR OPENING MM	OVER FRAME MM	DEPTH MM	CODE
127 x 80	180 x 180	75	319627



6150 6153 BOUNDARY BOXES

BS5834 Grade B

GRADE	CLEAR OPENING MM	OVER FRAME MM	DEPTH MM	SPIGOT DEPTH MM	CODE
B (6150/135)	150 x 140	187 x 187	60	30	PLEASE ENQUIRE
B (6150/150)	144 DIA	201 x 201	60	30	PLEASE ENQUIRE
B (6150/180)	184 DIA	240 x 240	60	45	PLEASE ENQUIRE
B (6153/190)	197 x 190	271 x 271	75	-	PLEASE ENQUIRE



TYPE A COATED SURFACE BOXES

BS5834 Grade C

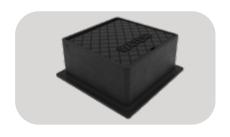
CLEAR OPENING	OVER FRAME	DEPTH	CODE
MM	MM	MM	
152 x 127 (BADGED WITH W)	202 x 170	75	314996



D6110 STOP TAP BOXES

BS5834 Grade C

DIMENSION			DEPTH		COATED
PATTERN	MM	INCHES	MM	INCHES	CODE
HINGED LID	114 x 114	4½ x 4½ x 3	76	3	317269
HINGED LID	127 x 127	5 x 5 x 4	102	4	313223
HINGED LID	152 x 152	6 x 6 x 3	76	3	319994
HINGED & LOCKING LID	152 x 152	6x6x3	76	3	326111
HINGED LID	305 x 305	12 x 12 x 4	102	4	316363



100C1H PLASTIC SURFACE BOXES

BS5834 Grade C

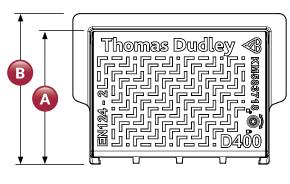
DIMENSION			DEPTH	COATED
PATTERN	MM	INCHES	MM	CODE
"W" BLACK LID	135 x 119	5 5/16 X 4 11/16	75	313629

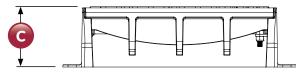


KERBDRAIN COVER AND FRAME









KEY FEATURES







BENEFITS

- Complies with BS EN 124-2:2015 suitable for intensity of traffic in Class D400 applications
- ✔ Half-Battered (HB) Profile
- Unique, slip resistant Thomas Dudley tread pattern
- ♥ Hinged cover to allow full drain access

CLEAR OPENING (A) MM	OVER FRAME (B) MM	DEPTH (C) MM	LOCK	CODE
480 x 350	592 x 420	150		371399
480 x 350	592 x 420	150	~	374322

REQUEST A QUOTE

Requesting a quotation from us for heavy duty manhole covers and heavy duty drain covers couldn't be easier. Simply visit www.tdfoundry.co.uk/contact-us/ and fill out the form.

Enquiries

Please call © 0121 521 2503 or email @ foundrysales@thomasdudley.co.uk

NOTES.

