



Product Catalogue N° 4



Cavanagh is now EJ

As the only foundry in Ireland manufacturing castings, wherever you are in the country you will find our products in use, facilitating safer environmental standards for local communities and supporting excellent communication and transport networks.

Our company has been supporting Ireland's infrastructure development from the foundation of the state providing agricultural and architectural castings through to the present day where we supply key customers in Ireland's construction, civil engineering, water, energy and telecommunications industries.

Based in Birr, Co Offaly we combine global knowledge and innovative technology with the heritage and workmanship that has been part of our local tradition for generations.

We pride ourselves on the level of excellence in everything we do- from world class product innovation to best practice in customer service. We are happy to organise tours of our foundry for those interested in seeing how it operates and to view new product innovations.

We are aided by a wide range of excellent distributors who provide us with an efficient route to market across Ireland.

Cavanagh in Ireland, East Jordan Iron Works in the USA, Norinco in France, HaveStock in Australia and McCoy in Canada, agreed some time ago that we would rebrand under the new name EJ. The Malpass family from East Jordan, Michigan, USA still owns and operates the company as they have since 1883.

Table of Contents

Introduction to EJ	4
Accreditations	14
Manufacturing Facilities	16
European Standard	18
Guide to Product Selection	20

Table of Contents

Product	Description	Page
Access Covers	Quick Guide Access Covers	
	F900/E600	A2
	D400	A4
	C250	A10
	B125	A11
	Infra-Riser	A14
	Customised Covers	A16
Cable, Utilities and Various network solutions	F900	B2
	Modular Access Covers	B3
	Pit Covers	B4
	Gas, Broadband	B5
	Traffic, CATV	B6
	Public Lighting, CCTV	B7
	Electrical Cable	B8
	Ermatic Range	B10
Telecommunication Solutions	E600	C2
	B125	C2
Waterworks Covers	IS261 product range	D3
	EN124 product range	D4
	Water Meter covers	D5
Drainage Gratings	F900/E600	E2
	D400	E3
	Trapped Gully	E6
	C250 Flat	E6
	C250 Dished	E7
	Kerb side entry	E7
	Linear Grating	E8
	Accessories	E9
Fabricated Steel Products	Flush Fit Range	F2
	Upstand Covers	F4
	Safety Grids	F5
Street Furniture	Tree Grilles	G2
	Bollards	G3
	Recessed and Solid Top Block Paving Covers	G4
	Tactile Paving Covers	G5
	Aluminium and Galvanised Recessed Covers	G6
Ancillary Product Range	Preformed Chambers	H2
	Lifting and Locking Keys	H4
	Precast Concrete Chambers	H6
	Plastic Gully Pots	H6
	Marker Plates, Bespoke Castings	H7
ACO Water Management	ACO Product Range	I2
Guidelines for Installations		



For over 125 years, we have fostered strong relationships around the world.

Ingenuity and craft.
Integrity and heart.

With ingenuity and craft, we have shaped molten iron into products that serve as the infrastructure of neighbourhoods, villages and cities. With integrity and heart, we have responded to our customers' needs and expectations and built names for ourselves: East Jordan Iron Works, Cavanagh, Norinco, McCoy, and Havestock.

Our family heritage and legacy have been the cornerstone of our journey and our inspiration to grow.



**Shared commitment.
Common bond.**

We've been on parallel paths: committed to creating the best infrastructure access solutions for our customers and backing them with unparalleled customer care. This commitment is our common bond. It melts distance, cultures and language. It's what strengthens us as a company under our new name EJ.

Together, we are the world leader in the design, manufacture and distribution of access covers and gratings for water, sewer, drainage, telecommunications and utility networks.



Global expertise.

Local understanding.

As a worldwide company, we excel at serving our customers by leveraging our global and local strengths. To ensure every customer benefits from our global learning we collaborate across departments. From Design to Manufacture, Research to Customer Care - from North America to France, Australia to Ireland - we share facts, data and developments across all disciplines.

This expertise includes the intelligence we gain through in-house research, on-road testing, and through participation in standards committees around the world. Our research and collaboration give us the edge in creating the best infrastructure solutions available—solutions that lead the industry, act as best-in-class benchmarks, and satisfy the most demanding customer expectation.

Our distribution network, manufacturing facilities, and highly developed understanding of local cultures and standards puts us in a perfect place to back our solutions with knowledgeable and responsive customer service. Our modern, regional production capabilities put inventories within quick reach of our customers. The result: Our customers have unrivalled access to innovations, inventories and service in the field.

Our people: our core strength.

Along with our distributors and agents, we take pride in what we do. We are honest and genuinely committed to creating and maintaining real, long-lasting relationships. We work where you work, we live where you live. We hire the right people, and give them superior knowledge. It is our employees' world-class knowledge and expertise that continues to keep us leading in our globally competitive industry.

We are fortunate to have a long history of attracting and retaining outstanding people. Our workforce is diverse, knowledgeable and loyal and often includes multiple generations from the same family. Our passionate and dedicated teams repeatedly earn recognition for their high degree of professionalism.



We are making good things happen.

Customer satisfaction.

Anticipating success.

Through the years, we've forged strong bonds with our customers. As a company with strong roots in family and heritage, it's no wonder that we regard our customers as part of our family as well. We call it our customer connection and we continuously strive to improve it by:

- Furnishing product design support from conception through installation
- Providing onsite assistance by our engineers and customer service personnel who know the local standards
- Hosting seminars and technical demonstrations
- Providing engineers and architects with the necessary tools (for example, drawings to aid the specification process)
- Communicating new product innovations and additions to product lines
- Delivering products quickly and smoothly worldwide

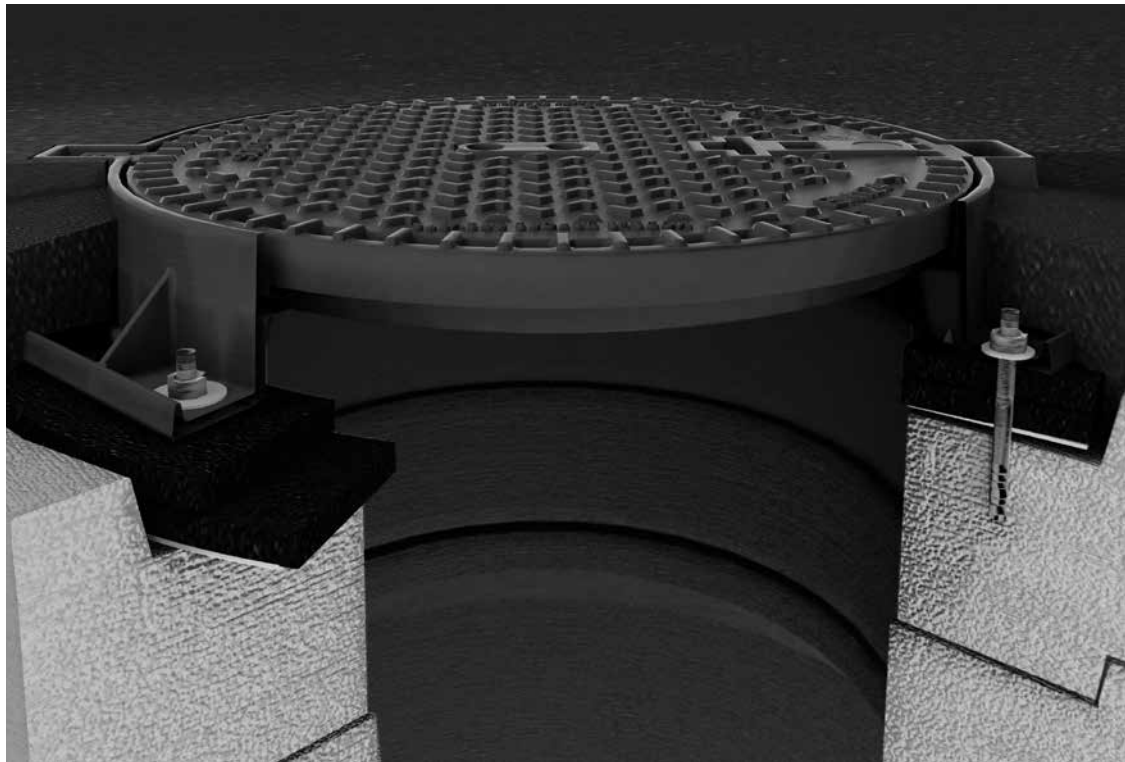


We create exceptional solutions.

Exceptional products.

Exceptional development.

We complement our extensive in-house knowledge with third-party research and input from industry experts. Our product designers use the latest software to generate designs. We also ensure that our products perform optimally through finite element analysis, in-house tests on materials, and load tests on product prototypes. We further verify that our products stand up under today's demands through our on-road testing and research. Once we are satisfied that our products will best meet customer needs, we manufacture them in best-in-class facilities and distribute them in over 140 countries.



**Customer-driven.
Constant innovation.**

Personal safety for every EJ employee is imperative. We incorporate safe practices into every process, product and service we provide - from design and manufacture, through distribution and end use.

Our highly trained and experienced in-house product development teams will provide the optimum solutions to solve our customers' challenges.

We will continue to explore the use of alternative materials for special application areas.

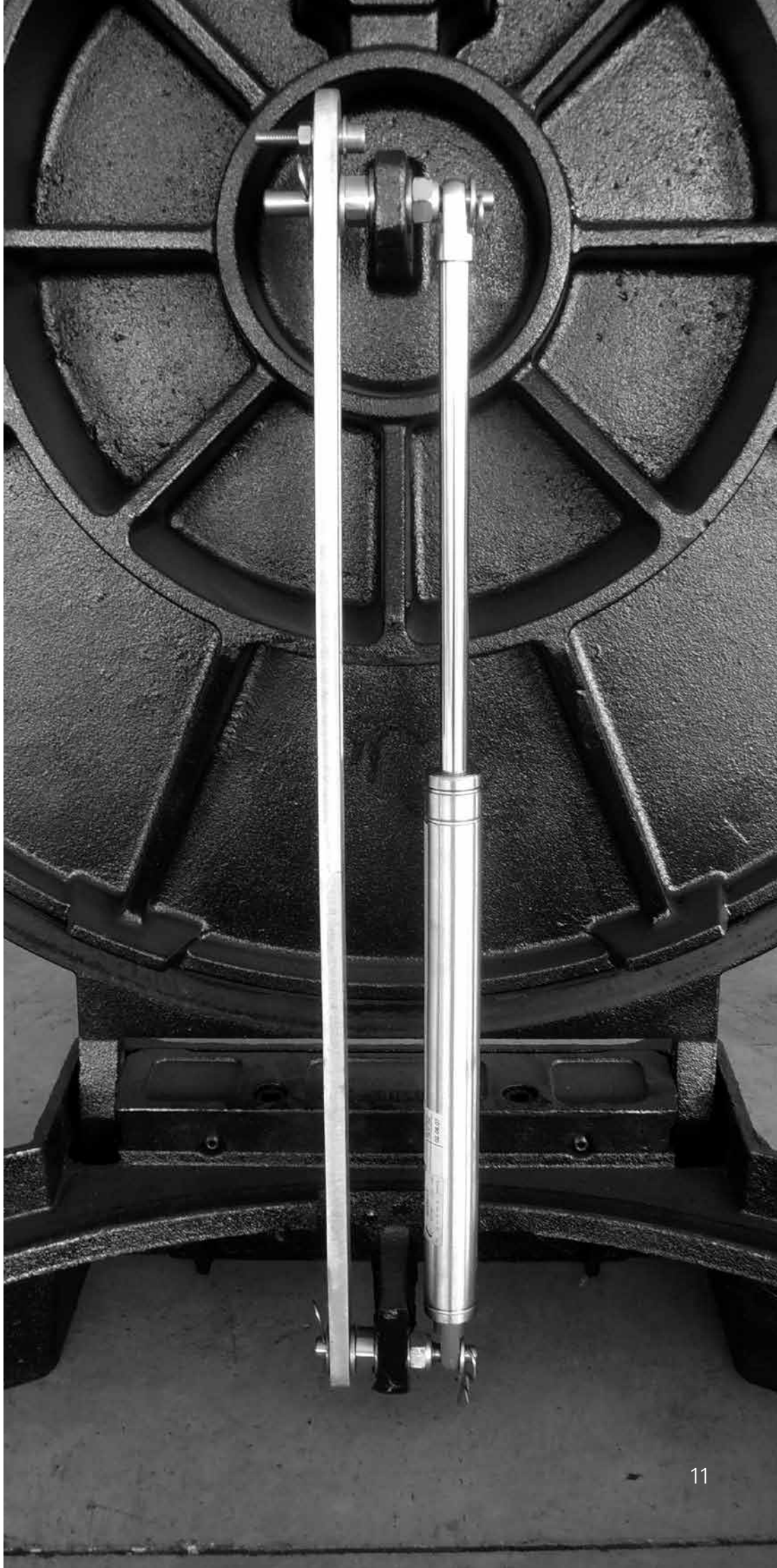
With the combined strengths of the EJ global network, no other company matches our:

- customer care
- technical expertise
- inventory levels
- product development
- product range
- manufacturing capacity
- certified quality

**Customised casting.
Optimum performance.**

We allow customers to customise many of our products with permanent messages and images. Our products are designed to provide optimum performance.

Our legacy of continuous improvement, innovation and safety will extend far into the future.



As a family-owned business, we take personal pride in our ongoing success.

Great things to come.

Our commitment to you is that we will continue to create ingenious customer-oriented solutions that improve people's lives. We will do that in ways that are smarter, greener and safer than ever before.

We look forward to working with you.





BS EN ISO 9001. Quality Management System

BS EN ISO 9001 is an international Standard for dealing with quality system requirements that can be used for external quality system assurance purposes.

BS EN ISO 9001 is the most comprehensive quality management system standard and incorporates quality assurance in design, development, production, installation and servicing.

This international standard specifies quality system requirements for use where a supplier's capability to design and supply conforming products needs to be demonstrated.

It should be emphasised that the quality system requirements specified in this international standard are complementary to and not alternative to product technical specified requirements such as those specified in EN124.



ISO 18001. Occupational Health and Safety Management System

OHSAS 18001 is the internationally recognised assessment specification for occupational health and safety management systems. It was developed by a selection of leading trade bodies, international standards and certification bodies to address a gap where no third-party certifiable international standard exists.

An OHSMS promotes a safe and healthy working environment by providing a framework that allows our organisation to consistently identify and control its health and safety risks, reduce the potential for accidents, aid legislative compliance and improve overall performance.

The following key areas are addressed by OHSAS 18001:

- Planning for hazard identification, risk assessment and risk control.
- OHSAS management programme.
- Training, awareness and competence.
- Operational control.
- Emergency preparedness and response.
- Performance measuring monitoring and improvement.



ISO 14001. Environmental Management System

ISO 14001 is an internationally accepted standard that determines an effective Environmental Management System (EMS). The standard is designed to address the delicate balance between maintaining profitability and reducing environmental impact; with the commitment of the company, it enables us to achieve both objectives.

Environmental impact is becoming an increasingly important issue across the globe, with pressure to minimise that impact coming from a number of sources: local and national governments, regulators, trade associations, customers, employees and shareholders. Social pressures are also building up from the growing array of interested parties, such as consumer, environmental and minority non-governmental organisations (NGOs), academia and neighbours.

Certifying the company's environmental management system to ISO 14001 means that a third party, such as BSI, has assessed that the Company meets the requirements set out in the standard.



BS EN 124.
Product Certification

BS EN 124 is a European Product Standard dealing specifically with Manhole Covers and Drainage Gratings.

This Standard is compulsory throughout Europe and replaced all national standards effective from 1st January 1995.

Clause 9(d) of this Standard stipulates that products shall bear the mark of a certification body.

In effect this means that each product must be independently tested and certified against the Standard for full conformity.

Products that do not bear a certification mark do not comply with EN124.

Our products are licenced by the NSAI and BSI to carry their certification marks.

The certification authorities continues to monitor that the products bearing their mark remain in compliance by exhaustive testing during regular visits to the Foundry and monitoring the products in the market.

“Manhole Covers and Drainage Gratings that are marked EN124 and do not bear the mark of a certification body do not comply with EN124.”

We are now a global enterprise that spans 5 continents promoting innovation, quality and a commitment to customer service. Our commercial presence worldwide includes 50 sales offices, 10 manufacturing facilities and multiple research and development centres.



Our facility located in Birr, Ireland includes a foundry manufacturing ductile iron castings, a fabricated steel facility and a distribution centre. Management system certification includes ISO 9001, ISO 14001 and OHSAS 18001 for quality management, environment, health and safety.



Our largest manufacturing facility in the USA is located in Ardmore, Oklahoma. A world-class production facility, utilising the best horizontal parted molding line for the manufacture of municipal castings and features the best environmental control technology available today. It is certified to ISO 9001.

Customer driven. Constant innovation.

We are a family run business centered around delivering customer satisfaction. We do not consider ourselves as simply manufacturers of product, we are solution providers. We pride ourselves on our after sales support and we have supported our clients in a host of ways from installation guidance to after sales training on products for maintenance purposes. Additionally on major projects such as airports, ports and exhibition halls our Design Engineers will visit site to discuss your project requirements and assess and offer the most cost effective solutions.

Research and development.

EJ has an unprecedented research and design team, with over 16 Design Engineers. We have product specific designers responsible for our entire range. We are able to provide Finite Elements analysis on existing products and also potential new designs. We are renowned globally for achieving design solutions for some of the most challenging of projects and we design and manufacture on average 60 new products a year, at least 1 new product every week.

Environmentally and socially responsible.

EJ is committed to providing a safe and healthy work environment for all our employees. Employees follow all safety rules and work proactively to reduce the risk of injury to themselves and their colleagues. No task is so important that it needs to be preformed in an unsafe manner.

We strive to operate in compliance with environmental legislation and approved codes of practice. We are proactive in educating our employees about environmental responsibility. We are shrinking our carbon footprint—reducing waste, recycling inputs and using resources efficiently.

All **EJ** facilities worldwide strive for continuous environmental improvement and use production processes and controls that minimise the impact to the environment.

We work to achieve long-standing partnerships with our supply chain and our customers. Our worldwide experiences are shared across our businesses ensuring we achieve best practice in our service and as a product provider.



Picardie foundry and distribution in France, employing 600 people and a capacity to manufacture up to 100,000 tonnes on a 42 hectare site. Management system certification includes ISO 9001, ISO 14001 with OHSAS 18001 for quality management, environment, health and safety.

Our fabrication facility located in the Ardennes, contains the most advanced technology such as plasma cutting and welding robots. Providing high volume capacity as well as tailor made solutions to the marketplace. Management system certification includes ISO 9001, ISO 14001 and OHSAS 18001 for quality management, environment, health and safety.



European Standard EN 124: 1994

The European Standard EN124 1994 applies to gully tops and manhole covers with a clear opening of less than 1,000mm, for installation in areas subject to pedestrian and/or vehicular traffic.

EN124 divides Manhole Covers and Drainage Gratings into six classes as follows:

A15, B125, C250, D400, E600, F900.

The classification denotes the test load expressed in kN. For example Class D400 denotes a product that complies with a test load of 400 kN.

The markings of a Third Party Certification Body must appear on the product in order to conform to EN124: 1994



MPA NRW



COPRO



GROUP 1	GROUP 2	GROUP 3	GROUP 4	GROUP 5	GROUP 6
MINIMUM CLASS A15	MINIMUM CLASS B125	MINIMUM CLASS C250	MINIMUM CLASS D400	MINIMUM CLASS E600	CLASS F900

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

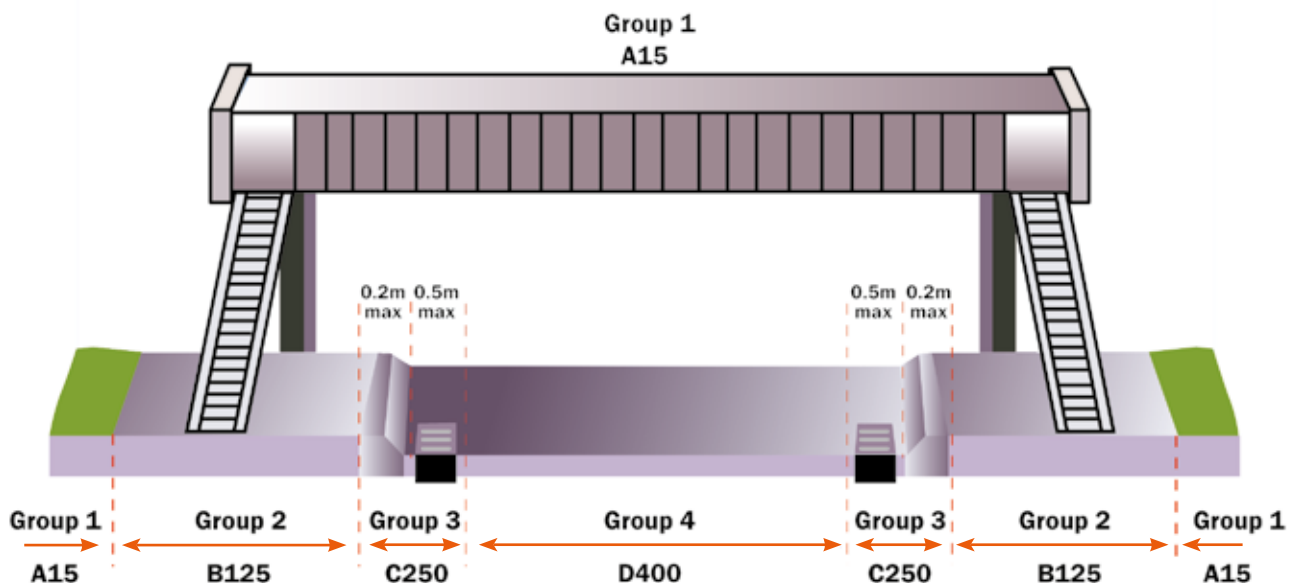
Footways, pedestrian and comparable areas, car parks or car parking decks.

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.

Carriageways of roads (including pedestrian streets), hard shoulders and parking areas, for all types of road vehicles.

Areas imposing high wheel loads, e.g. docks, aircraft pavements.

Areas imposing particularly high wheel loads, e.g. aircraft pavements.



Typical highway cross-section showing the location of some installation groups.

Product Markings

In order for products to comply with EN124 and to be third party certified the following markings must appear on the products.



1 Identification of manufacturer and production site

2 Reference of standard

3 Mark of third party certification body

4 Load class

Note: EN124 is the minimum performance specification, if there is any doubt, a higher category cover and frame should be selected. Our Sales Team are available for any assistance on product selection.

The project designer must also determine the product size required in addition to the appropriate class.

It is important to take into account any additional requirements of the client such as:

- Locking mechanism
- Hinged covers
- Customised badging
- Mass per Unit area

Please refer to the relevant datasheet when specifying product.

For guidance on product installation please refer to the National Roads Authority's Manual of Contracts Documents for Road Users.

We also refer to the UK's Highways Agency's Design Manual for Roads and Bridges which outlines the requirements for chamber tops - HA 104/09 and in areas of extreme traffic volumes (in excess of 1,500 vehicles per day) they recommend the use of higher loading class products e.g. E600 or F900 loading class.

"For safety critical products such as manhole tops and gully tops, your decisions cannot be made lightly. You are responsible for the whole life performance of an installation, which in turn will influence on-going public safety. When you specify something as important as this, you have only one chance to get it right."

-BSI Certification Scheme.

1 Drawings, photographs and weights are given as an indication only and without any contractual value.

Our policy is one of continuous product improvement, we reserve the right to modify product specifications without prior notice.

2 Products not certified according to EN 124 have been developed in compliance with particular operators' specifications.

The products' characteristics are guaranteed only when installation and maintenance best practices are respected.

3 Places of installation are indicated according to the standard EN 124.

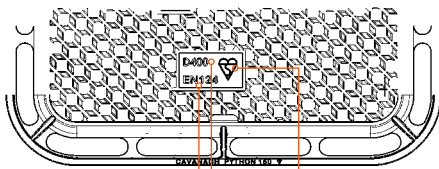
EJ shall not under any circumstances be held responsible for having suggested a place of installation throughout this document.

4 Recessed cover: Recessed products are certified only when the product is infilled by the manufacturer.

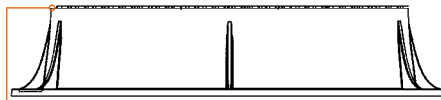
Guidelines on Product Specification

Outlined below is a guide to aid you the specifier on how to specify Municipal Castings as part of your tender process. In turn you can specify a product that meets your expectations. The points 1- 21 listed below are key to the correct selection of product and please refer to EN124 Product Selection for the appropriate class of product. To obtain a copy of our **Product Specification for Tender Purposes** which outlines examples of how to specify product please contact the Business Development Team.

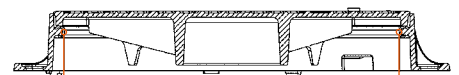
1. Product standard.
2. Loading classification.
3. Certification by 3rd Party.
4. Overall frame size.
5. Frame depth.
6. Frame bearing area/bedding width.
7. Clear opening.
8. Sealed cover.
9. Round frame/square frame.
10. Seating.
11. Depth of insertion.
12. Ventilated cover.
13. Filled flange.
14. Slot orientation on grating.
15. Ergonomic design – to allow for ease of opening.
16. Ergonomic feature e.g. gas strut assist and safety bar to prevent covers from freely closing.
17. Requirements for hinged cover.
18. Locking devices – mass per unit area, specific design features, materials, stainless steel, means for repair/replacement.
19. Requirements for markings i.e. company name/logo, identification of underground service, local authority's coat of arms and customised or commissioned artwork.
20. Painting of casting.
21. Anti-slip height 3 to 8mm.



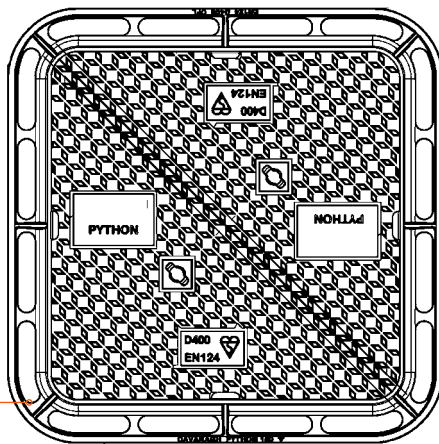
1. Product standard
2. Loading classification
3. Certification by 3rd Party



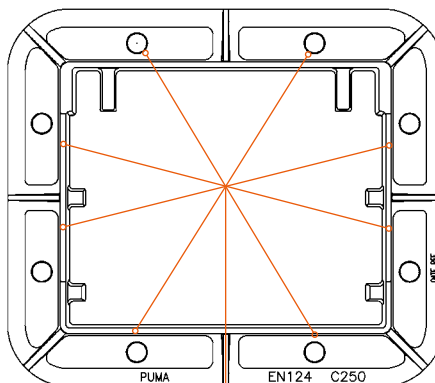
5. Frame depth.



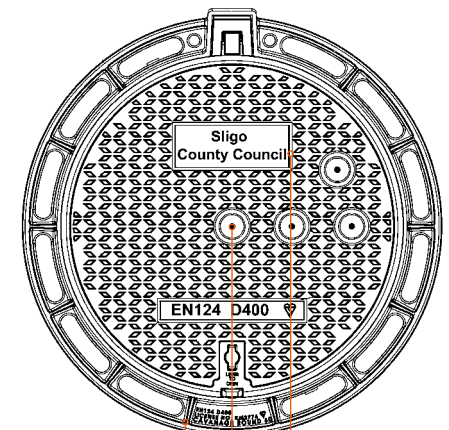
7. Clear opening.



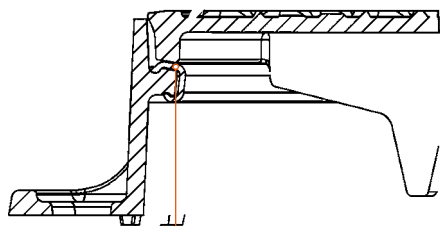
4. Overall frame size
9. Square frame



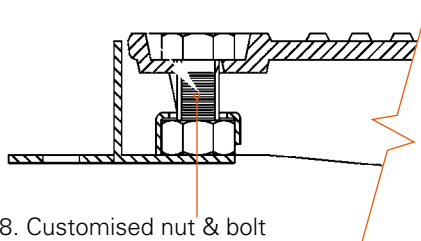
6. Frame bearing area



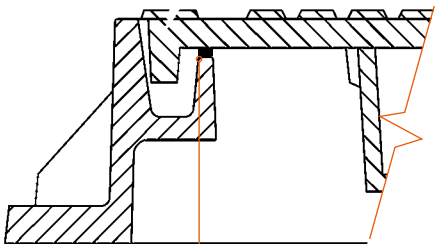
9. Round frame
12. Ventilated cover
19. Customised markings



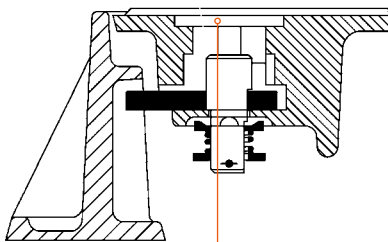
10. Seating



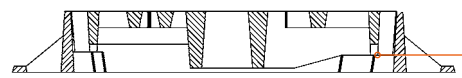
18. Customised nut & bolt



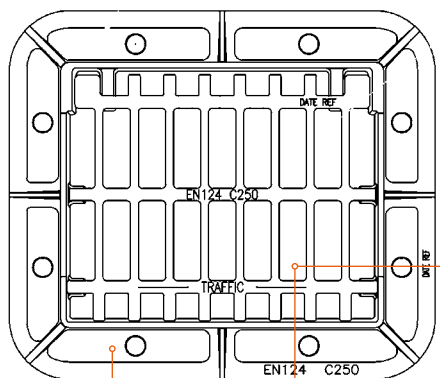
8. Sealed cover.



18. Stainless tumble locking system

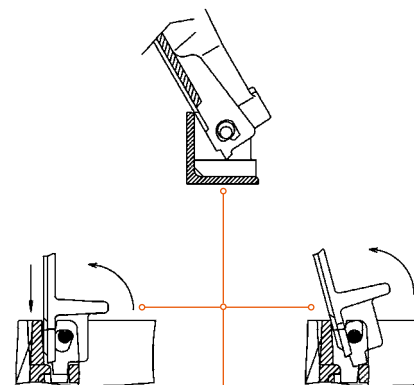
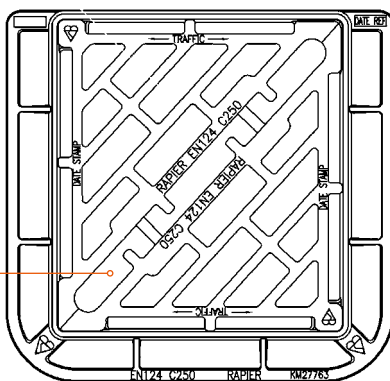


11. Depth of insertion



13. Filled flange

14. Slot orientation on gratings



17. Hinged cover



15. Ergonomic design



16. Ergonomic features



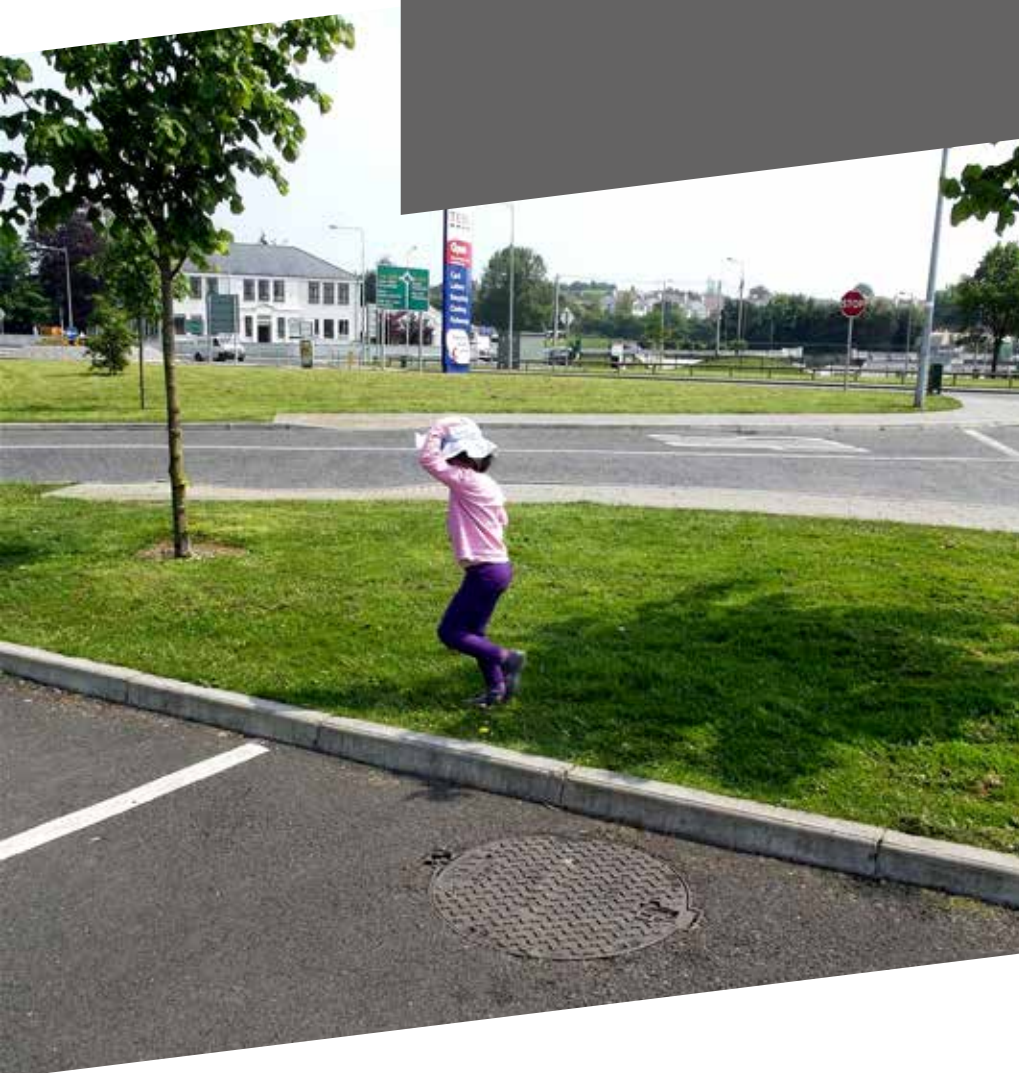
20. Painting of casting

21. Anti-slip height 3 to 8 mm

Quick Guide to Access Covers

class	clear opening (mm)	product range	features	3rd party certification body	page
F900					
	750-2250	TI 9S DT 9S	Hinged, Gas strut Hinged, Removable covers	AFNOR NF AFNOR NF	A2 A2
	Ø800	LSPBS	Slide out, Cushioning insert	AFNOR NF	A2
	Ø600	SOLO F	Hinged, Cushioning insert	AFNOR NF	A2
	400	DT9S	Slide out	AFNOR NF	A2
E600					
	1220 x 685	DT6S	Hinged, 150 mm frame	BSI KM	A3
	1070 x 650	DT6S	Slide out, 125 mm frame	BSI KM	A3
	600 x 600	SCORPION	Double triangular, 150 mm frame	BSI KM	A3
D400					
	Ø800	MAXIMO C,R MAXIMO V5 LSPB LSPBE	Hinged, Gas strut Hinged, Gas strut, Pressure tight Slide out, Cushioning insert Locked, Pressure tight	AFNOR NF AFNOR NF AFNOR NF AFNOR NF	A4 A4 A5 A5
	Ø700	SRL 100 BRIO 7	Hinged, 2 covers Hinged, Lifting handle	AFNOR NF AFNOR NF	A5 A5
	Ø600	SOLO SELF SOLO SELF BRIO TWINO TEO OPTO BROSNA GBRE V6 SRL C SRL R SABET	Hinged, Guide frame Hinged, 100mm frame Hinged, Lifting handle Hinged, Slam lock Hinged, Cushioning insert Slide out, Cushioning insert Hinged, Snap lock Locked, Pressure tight Hinged, 2 covers Hinged, recessed covers	AFNOR NF AFNOR NF BSI KM BSI KM BSI KM BSI KM BSI KM AFNOR NF AFNOR NF AFNOR NF	A6 A6 A6 A7 A7 A7 A7 A8 A8 A8
	600 X 600	DOUBLE TRIANGULAR	Double triangular, 100 or 150 mm frame	BSI KM	A10
	600-1300	T14S MULTILEAF	Hinged, Locked	BSI KM	A10
	600 X 600	N0ROC	Slide out, Wedged seating	BSI KM	A10
	300-700	TRUCK	Slide out, Cushioning insert	BSI KM	A10
C250					
	Ø600	COUGAR TP800 TP800E	Slide out, Single seal Slide out, 75 mm frame Slide out, Pressure tight	BSI KM AFNOR NF AFNOR NF	A10 A11 A11
B125					
	Ø550 Ø443 200- 600	TIGER INSPECTION QUATTRO RACoon CELTIC	Slide out, 60 mm frame Slide out, Single seal Slide out, Single seal Slide out, Single seal Slide out, Celtic design	BSI KM BSI KM BSI KM BSI KM BSI KM	A11 A11 A11 A12 A12

Access Covers



A2	F900/E600
A4-A8	D400 A4 Clear Opening 800 mm A5 Clear Opening 700 mm A9 Clear Opening 675 mm A5 Clear Opening 600 mm
A9	D400 Double triangular covers
A10	C250
A11	B125
A14	Infra-Risers
A16	Customised covers

Drawings, photographs and weights are given as an indication only without any contractual value. Our policy is one of continuous product improvement, we reserve the right to modify product specifications without prior notice.

Access Covers

F900	Features How to specify product	product code	reference	clear opening (mm)	overall dimensions (mm)	height (mm)	weight (kg)
TI 9S EN124 F900 	Hinged ductile iron cover and frame, F900 to EN124:1994, 1000x1000mm clear opening, Square frame, Non rock covers by means of three point suspension, Locked (key not supplied), Ergonomic operation with a gas strut. The cover is safety blocked at 90°, Custom badging available, Third party certified with AFNOR NF	526007 514260	TI9S100100AVH11 NF TI KEY	1000x1000	1245x1235	180	385
LSPBS F EN124 F900 	Ductile iron cover and frame, F900 to EN124:1994, 800mm dia. clear opening, Circular frame, 2 BS closed keyways, Non rock by means of polychloroprene cushioning insert, Slide out operation, Third party certified with AFNOR NF mark. Options: square frame, Selflevel frame	518361 518362 710059	LSPBS 8R.1F LSPBS 8R.1F VENT BS KEY	Ø800 Ø800	Ø970 Ø970	127 127	127 127
DT 9S A EN124 F900 	Hinged ductile iron cover and frame, F900 to EN124:1994, Non rock covers by means of three point suspension, The covers interlock, Hinged cover allows for easy opening, Rest at 105°, block at 90° and are removable from the horizontal position (after removal of hinge pins), Custom badging available, Third party certified with AFNOR NF mark. Option: gas strut assistance	518857 520796 534684 514827 522998	DT9S075075AVOTC DT9S150075AVOTC DT9S225075AVOTC OTC LOCKING KEY ERGONOMIC LIFTING ARMS	750x750 1500x750 2225x750	910x950 1660x950 2416x950	120 150 150	198 396 641
DT 9S EN124 F900 	Ductile iron cover and frame, F900 to EN124:1994, Non rock covers by means of three point suspension, Custom badging available, Third party certified with AFNOR NF mark. Option: custom badging	538117	DT9S040040	400 x 400	550X550	100	66
SOLO F EN124 D400 	Hinged ductile iron cover and frame, F900 to EN124:1994, 600mm dia. clear opening, Circular frame, 1 closed keyway for use with crowbar or hook, Non rock by means of polychloroprene cushioning insert glued to the cover, Hinged cover allows for easy opening, Third party certified with AFNOR NF Options: locking (OTC), Vented cover, Cover safety blocking, Selflevel frame, exist in non-hinged version (DUO cover)	510773 526685 514827	SOLO FC SOLO FC VOTC OTC KEY	Ø600 Ø600	850x850 850x850	100 100	110 110

Access Covers

E600	Features How to specify product	product code	reference	clear opening (mm)	overall dimensions (mm)	height (mm)	weight (kg)
DT 6S EN124 E600 	Hinged ductile iron cover and frame, E600 to EN124:1994, 1220x685mm clear opening, 150mm deep frame, 2 BS closed keyways per triangular cover, Non rock covers by means of three point suspension, Locked (OTC head - key not supplied), Ergonomic design with hinged covers, Covers block at 90° for safety, Custom badging available, Third party certified by BSI KM.	524874 710059	DT6S122068AVOTC BS KEY	1220x685	1400x915	150	265
DT 6S EN124 E600 	Ductile iron cover and frame, E600 to EN124:1994, 1070x650mm clear opening, 125mm deep frame, 4 keyways, Non rock covers by means of three point suspension, Special seating to avoid lateral movement, Handling by means of special clamp lifting keys (ordered separately) Custom badging available, Third party certified by BSI KM.	522648 7B0740	DT6S107065 LIFTING ARMS	1070x650	1220x850	125	247
SCORPION 150 E600 EN124 E600 	Ductile iron cover and frame, E600 to EN124:1994, 600 X 600mm clear opening, 150mm deep frame, 2 BS closed keyways, Non rock covers by means of three point suspension, Third party certified by BSI KM. Options: Ventilated cover Dust sealing plate Locking arrangement (patented design) Selection of mass per unit area weights	710009 710013	Circular Frame Opening SCORPION E600 Square Frame Opening SCORPION E600	Ø600 600 x 600	780 x 780 830 x 830	150 150	122 127

Access Covers

D400	Features How to specify product	product code	reference	clear opening (mm)	overall dimensions (mm)	height (mm)	weight (kg)
Clear Opening Ø800mm MAXIMO EN124 D400 	Hinged ductile iron cover and frame, D400 to EN124:1994, 800mm dia. clear opening, Square 155mm deep frame, 1 closed keyway for use with crowbar or hook, Non rock by means of polychloroprene cushioning insert glued to the cover, Assisted ergonomic opening by means of a gas strut. Covers block at 90° for safety, Third party certified with AFNOR NF mark. Options: circular frame, Stainless steel gas strut for unassisted opening, Selflevel frame, Vented cover, High security horizontal locking (VOR)	526741 526740 514827	MAXIMO C VOTC MAXIMO R VOTC OTC LOCKING KEY	Ø800 Ø800	1000 x 1000 Ø1000	155 155	155 142
	MAXIMO V EN124 D400 	528177 528174	MAXIMO R V5 MAXIMO C V5	Ø800 Ø800	Ø1000 1000 x 1000	155 155	143 155
	LSPB EN124 D400 	532533 510609 710059	LSPBS 8R LSPBS C SQUARE BS KEY	Ø800 Ø776	Ø1000 1020 x 1020	102 92	119 119
	Options: circular frame, Stainless steel gas strut Unassisted opening, Pressure tight (1/2 bar)						
	Ductile iron cover and frame, D400 to EN124:1994, 800mm dia. clear opening, Square 100mm deep frame, 2 BS closed keyways, Non rock by means of polychloroprene cushioning insert glued to the cover, Slide out operation, Third party certified with AFNOR NF mark. Options: circular frame, Locking (OTC), Vented cover						

Access Covers

D400	Features How to specify product	product code	reference	clear opening (mm)	overall dimensions (mm)	height (mm)	weight (kg)
LSPBE EN124 D400 	Ductile iron cover and frame, D400 to EN124:1994, 800mm dia. Clear opening, Circular 100mm deep frame, 2 BS closed keyways, Non rock by means of polychloroprene cushioning insert glued to the cover, locked with 6 x M12 stainless steel bolts, slide out operation, Pressure tight (1 bar), Third party certified with AFNOR NF mark.	514251 710059	LSPBE R V6 BS KEY	Ø800	Ø1000	102	118
Clear Opening Ø700mm SRL 100 EN124 D400 	Hinged ductile iron cover and frame, D400 to EN124:1994, 700mm dia. clear opening, Square 100mm deep frame, 2 closed keyways, Non rock covers by means of three point suspension and wedged seating, Hinged cover allows for easy opening, Rest at 90° and are removable from the vertical position, Third party certified with AFNOR NF mark. Options: square exposed frame to be precast	510607	SRL 100 C	Ø700	1000x1000	100	175
BRIO 7 EN124 D400 	Hinged ductile iron cover and frame, D400 to EN124:1994, 700mm dia. clear opening, Square 100mm deep frame, Non rock by means of polyethylene cushioning insert fixed to the frame. Five centering guides to minimise cover lateral movement, 1 integrated and retractable handle for ease of handling, Third party certified with AFNOR NF mark. Options: locking (OTC), Cover safety blocking, Octagonal frame.	516551 516550 516757	BRIO 7 R BRIO 7 C Locked BRIO 7 CL	Ø700 Ø700 Ø700	Ø1000 950x950 950x950	100 100 100	79 87 87
Clear Opening Ø600mm SOLO SELFLEVEL EN124 D400 	Hinged ductile iron cover and frame, D400 to EN124:1994, 600mm dia. clear opening, Circular selflevel 240mm deep frame, With guide frame, 1 Closed keyway for use with crowbar or hook, Non rock by means of polychloroprene cushioning insert glued to the cover, Hinged cover allows for easy opening, Rests at 115° and blocks at 90°, Third party certified with AFNOR NF mark. Options: locking (OTC), Vented cover, Water resistant (product reference SV3E)	532500	SOLO SELF S ENC CG	Ø600	Ø810	240	139

Access Covers

D400	Features How to specify product	product code	reference	clear opening (mm)	overall dimensions (mm)	height (mm)	weight (kg)
SOLO SELFLEVEL EN124 D400 	<p>Hinged ductile iron cover and frame, D400 to EN124:1994, 600mm dia. Clear opening, Circular selflevel 100mm deep frame, With guide frame, 1 closed keyway for use with crowbar or hook, Non rock by means of polychloroprene cushioning insert glued to the cover, Hinged cover allows for easy opening, Rests at 115° and blocks at 90°, Third party certified with AFNOR NF mark.</p> <p>Options: locking (OTC), Vented cover</p>	532811	SOLOCC SELF 615-200	Ø600	Ø810	100	98
BRIO EN124 D400  	<p>Hinged ductile iron cover and frame, D400 to EN124:1994, 600mm dia. clear opening, Non rock by means of polyethylene cushioning insert fixed to the frame. Five centering guides to minimise cover lateral movement, 1 integrated and retractable handle for ease of handling, Third party certified with BSI KM.</p> <p>Options: locking (OTC), Cover safety blocking, Octagonal frame, vented cover</p>	711104 514823 522346 711105 711106 522486 522351 711107 512740	BRIO R STANDARD BRIO SR BRIO R VENTILATED BRIO R VOTC BRIO C STANDARD BRIO SC BRIO C VENTILATED BRIO C VOTC OTC KEY	Ø600 Ø600 Ø600 Ø600 Ø600 Ø600 Ø600 Ø600	Ø850 Ø850 Ø850 Ø850 850×850 850×850 850×850 850×850	100 100 100 100 100 100 100 100	62 62 62 62 71 71 71 71
BRIO RING BEAM EN124 D400 	<p>As per spec for BRIO cover above Frame pre-installed and bolted to ring beam Even distribution of bearing Monoblock concrete beam adds strength to overall chamber structure Weight of ring beam 222 kg (approx.) Lifting points for ring beam for ease of installation Delivered assembled to site Concrete strength at 28 days to be 40N/mm² Steel Reinforcements to BS 4449</p> <p>Options: As per options for BRIO cover above Ring Beams can be designed to suit other covers</p>	7B0120	BRIO RING BEAM UNIT	Ø600	Ø1050	235	282

Access Covers

D400	Features How to specify product	product code	reference	clear opening (mm)	overall dimensions (mm)	height (mm)	weight (kg)
TWINO EN124 D400 	Hinged ductile iron cover and frame, D400 to EN124:1994, 600mm dia. clear opening, Circular 100mm deep frame, Non rock by means of polyethylene cushioning insert fixed to the frame. Four centering guides to minimise cover lateral movement, Slam lock system 1 sealed keyway Options: Locked Captive hinge system	538658 01	TWINO SR	Ø600	Ø850	100	52
TEO EN124 D400 	Hinged ductile iron cover and frame, D400 to EN124:1994, 600mm dia. clear opening, Circular 100mm deep frame, Non rock by means of polyethylene Cushioning insert fixed to the frame. Five centering guides to minimise cover lateral movement, 1 Sealed keyway Third party certified with BSI KM mark.	534180	TEO PKSR	Ø600	Ø850	100	56
OPTO EN124 D400 	Ductile iron cover and frame, D400 to EN124:1994, 600mm dia. Clear opening, Circular 75mm deep frame, Non rock by means of polyethylene Cushioning insert fixed to the frame. Five centering guides to minimise cover lateral movement, 2 Keyways Third party certified with BSI KM mark.	526294	OPTO	Ø600	Ø850	75	51
BROSNA EN124 D400  	Hinged ductile iron cover and frame, D400 to EN124:1994, 600mm dia. clear opening, 100mm deep frame, 1 closed BS keyway, Non rock by means of polyethylene cushioning insert fixed to the frame. Six centering guides to minimise cover lateral movement, Snap lock system, Cover is removable at 90° angle, Third party certified with BSI KM mark. Options: locking (OTC), Circular frame, Vented cover	710041 710040 710059	BROSNA ROUND BROSNA SQUARE BS KEY	Ø600 Ø600	Ø800 800x800	100 100	72 72

Access Covers

D400	Features How to specify product	product code	reference	clear opening (mm)	overall dimensions (mm)	height (mm)	weight (kg)
GBRE V6 SUMO II BAR EN124 D400 	Ductile iron cover and frame, D400 to EN124:1994, 600mm dia. clear opening, Circular 100mm deep frame, 2 BS closed keyways, Non rock by means of polychloroprene cushioning insert glued to the frame, Locked with 6 x M12 stainless steel bolts, slide out operation, Pressure tight (2 bar), Third party certified with AFNOR NF mark.	514303 710059	GBRE V6 BS KEY	Ø600	Ø850	100	85
SRL C EN124 D400 	Hinged ductile iron cover and frame, D400 to EN124:1994, 600mm dia. clear opening, Square 100mm deep frame, 2 closed keyways, Non rock covers by means of three point suspension and wedged seating, Hinged cover allows for easy opening, Rest at 90° and are removable from the vertical position, Third party certified with AFNOR NF mark. Options: circular frame	503042	SRL C	Ø600	850x850	100	106
SRL R SABET EN124 D400 	Hinged ductile iron recessed cover and frame, D400 to EN124:1994, 600mm dia. clear opening, Square 100mm deep frame, 2 closed keyways, Non rock covers by means of three point suspension and wedged seating, Hinged cover allows for easy opening, Rest at 90° and are removable from the vertical position, Third party certified with AFNOR NF mark.	526738	SRL R SA BET	Ø600	Ø850	100	130

Access Covers

D400	Features How to specify product	product code	reference	clear opening (mm)	overall dimensions (mm)	height (mm)	weight (kg)
Double triangular covers EN124 D400  	Ductile iron cover and frame, D400 to EN124:1994, 100 or 150mm deep frame BS closed keyways, Non rock covers by means of three point suspension, Covers loosely coupled, Third party certified by BSI KM. (NF for T14S) Options: SW and FW and custom badges	532667	HUDSON 150	1220x675	1365x830	150	220
		534364	HUDSON 100	1220x675	1365x830	100	213
		518727	WATT 150	675x675	840x840	150	104
		710001	SCORPION 675	675x675	830x830	100	115
		512466	WHITTLE	900x600	1060x760	100	137
		512467	SINCLAIR	750x600	910x760	100	113
SCORPION 150 EN124 D400 	Ductile iron cover and frame D400 to EN124:1994, 150mm deep frame, 2 BS closed keyways, Non rock covers by means of three point suspension, Covers loosely coupled, Third party certified by BSI KM. Options: Ventilated cover available Dust sealing plate available SW and FW and custom badges Locking arrangement (patented design)	710019	Square frame opening SCORPION 150	600 x 600	780 x 780	150	117
		710020	Circular frame opening SCORPION 150	Ø600	780 x 780	150	120
		710028	Circular frame opening SCORPION 150 LKD	Ø600	780 x 780	150	120
SCORPION 100 EN124 D400 	Ductile iron cover and frame D400 to EN124:1994, 100mm deep frame, 2 BS closed keyways, Non rock covers by means of three point suspension, Covers loosely coupled, Third party certified by BSI KM Options: Ventilated cover available SW and FW and custom badges	710080	Square frame opening SCORPION 100	600x600	760x760	100	99
		710081	Circular frame opening SCORPION 100	Ø600	760x760	100	101
		710029	Square frame opening SCORPION 100 LKD	600x600	760x760	100	98
PYTHON 150 EN124 D400 	Ductile iron cover and frame D400 to EN 124:1994, 150mm deep frame, 2 BS closed keyways, Non rock covers by means of three point suspension, Covers loosely coupled, Third party certified by BSI KM. Options: Ventilated cover available SW and FW and custom badges	710035	Square Frame Opening PYTHON 150	600 x 600	750 x 750	150	85
		710036	Circular Frame Opening PYTHON 150	Ø600	750 x 750	150	92
PYTHON 100 EN124 D400 	Ductile iron cover and frame D400 to EN 124:1994, 150mm deep frame, 2 BS closed keyways, Non rock covers by means of three point suspension, Covers loosely coupled, Third party certified by BSI KM.	710011	Square Frame Opening PYTHON 100	600 x 600	750 x 750	100	77
		710034	Circular Frame Opening PYTHON 100	Ø600	750 x 750	100	84

Access Covers

	Features How to specify product	product code	reference	clear opening (mm)	overall dimensions (mm)	height (mm)	weight (kg)
MULTILEAF EN124 D400 	Material - ductile iron cover and frame Double triangular (2 or 4) hinged covers with mono-block frame, Safety blocking to prevent accidental cover closure, Cover parts hinge back to 110° and lock at 90° which prevent it from freely closing Covers are removable from the frame vertically, Non-rock covers by means of 3 point suspension. Covers interlock with the last cover being locked by a stainless steel turnbuckle locking mechanism (codes key supplied separately) Opening effort < 30 daN (except 518967) Can be opened by one operator Options: Unique locking and handling keys for specific requirements Custom badging	518967	TI4S090090AV	900x900	1084 x 1100	150	208
		518078	TI4S130080AV	1300x800	1500x980	100	247
		522484	TI4S120075AV11	1200x750	1400x930	120	260
		538451	TI4S106070.1AV	1060x700	1255x884	100	192
		514450	TI4S080070AV	800x700	945x872	100	130
		534643	TI4S120060.1AV	1200x600	1400x780	100	162
		532008	TI4S090060AV11	900x600	1102x764	100	135
		536129	TI4S060060.1AV	600x600	745x770	100	85
		532415	TI4S075045AV11	750x450	914x614	100	94
		522598	TI4S060045AV11	600x450	745x600	100	73
		514260	TI KEY				
NOROC EN124 D400 	Ductile iron cover and frame D400 to EN124:1994, 100mm deep frame, 2 BS closed keyways, Non rock covers by means of V shaped seating with wedging Third party certified by BSI KM.	532130	Square Frame Opening NOROC	600 x 600	760 x 760	100	102
TRUCK EN124 D400 	Ductile iron cover and frame, D400 to EN124:1994, Special frame design to allow adjacent paviour blocks, 1 or 2 closed BS keyway, Polyethylene cushioning insert fixed to the frame, Slide out operation, Custom badging available, Third party certified by BSI KM Options: Custom badging, gratings	524784 524785 524786 524787 526572 526573 710059	TRUCK 300 TRUCK 400 TRUCK 500 TRUCK 600 TRUCK 700 TRUCK 7050 BS KEY	300x300 400x400 500x500 600x600 700x700 700x500	440x440 540x540 640x640 740x740 840x840 840x640	76 102 102 102 102 102	27 40 53 68 90 73
C250							
COUGAR EN124 C250 	Ductile iron cover and frame, C250 to EN124:1994, 600mm dia. clear opening, Square 75mm deep frame, 2 BS closed keyways, Single seal, Custom badging available, Third party certified by BSI KM. Options: vented covers, B125 load reference 710058	710057 710059	COUGAR BS KEY	Ø600	750 x 750	75	45

Access Covers

	Features How to specify product	product code	reference	clear opening (mm)	overall dimensions (mm)	height (mm)	weight (kg)
TP800 EN124 C250 	Ductile iron cover and frame C250 to EN124:1994 600mm dia. clear opening, Square 75mm deep frame, Non rock by means of polyethylene cushioning insert fixed to the frame. Third party certified with AFNOR NF mark.	528668	Circular Frame TP 800 R	Ø600	Ø850	75	46
		528669	Square Frame TP 800 C	Ø600	815 x 815	75	54
TP800E EN124 C250 	Ductile iron cover and frame C250 to EN124:1994 600mm dia. clear opening, Square 75mm deep frame, Non rock by means of polyethylene cushioning insert fixed to the frame. Locked Cover Watertight to 1 bar pressure applied at the under face or surface Third party certified with AFNOR NF mark.	528670	Circular Frame TP 800 E	Ø600	815 x 815	75	54
B125							
TIGER EN124 B125 	Ductile iron cover and frame, B125 to EN124:1994, 550mm dia. clear opening, Square 60 mm deep frame, 2 BS closed keyways, Custom badging available, Third party certified by BSI KM. Options: Ventilated cover available Locking arrangement (patented design).	710052 710054	TIGER TIGER LOCKED	Ø550 Ø550	670 x 670 670 x 670	60 60	43 43
		710250	INSPECTION COVER	Ø443	Ø550	34	23
INSPECTION COVER EN124 B125 	Ductile iron cover and frame B125 to EN124:1994, Sealed keyways Single continuous seal groove Suitable for the majority of 450 dia Armstrong Junction chambers						
QUATTRO EN124 B125 	Ductile iron cover and frame, B125 to EN124:1994, Closed keyways, 4 rubber cushioning inserts fixed to the frame for stability and to minimise noise Slide out operation, Single seal, Custom badging available, Third party certified by BSI KM. Options: Locking Cover available for Quattro 400, 500, 600 and 700	522065	QUATTRO 300	202 x 202	300 x 300	39	8
		522066	QUATTRO 400	302 x 302	400 x 400	39	13
		522068	QUATTRO 500	402 x 402	500 x 500	40	19
		528351	QUATTRO 600	502 x 502	600 x 600	40	28
		536146	QUATTRO 700	602 x 602	700 x 700	42	42
		524045	QUATTRO 7055	600 x 450	700 x 550	40	59

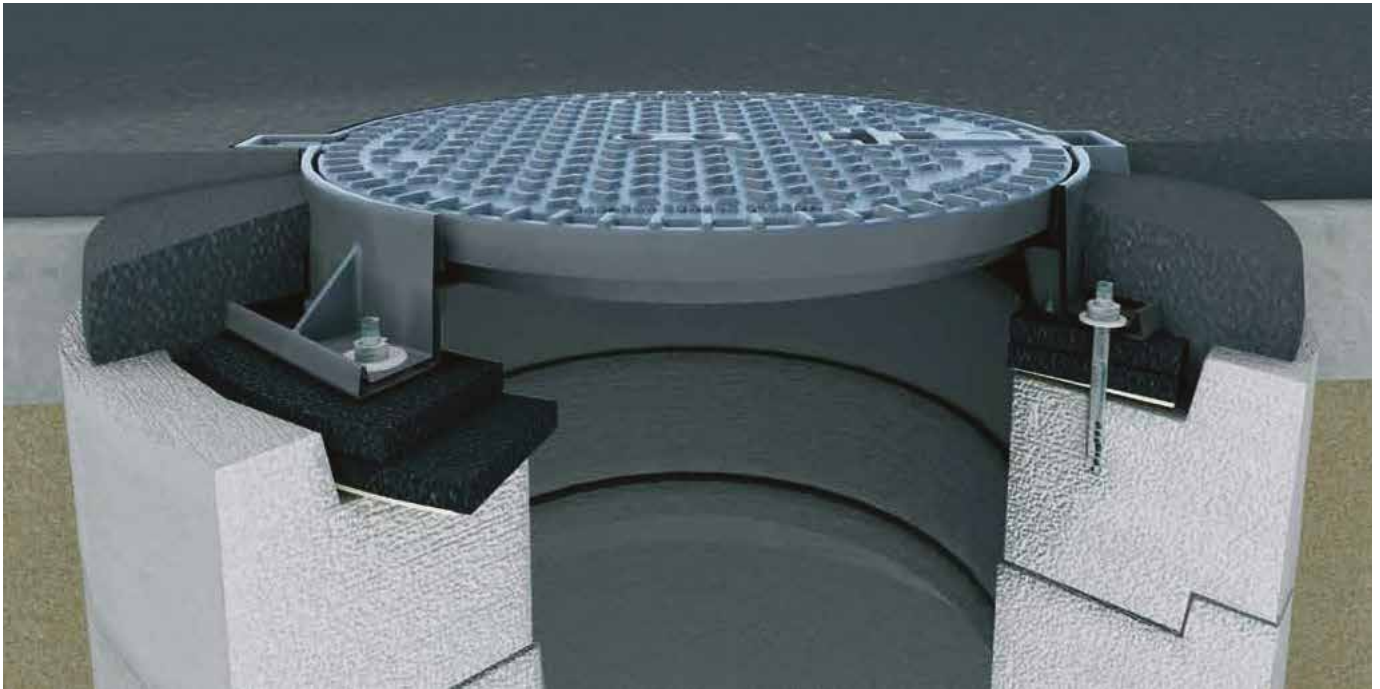
Access Covers

	Features How to specify product	product code	reference	clear opening (mm)	overall dimensions (mm)	height (mm)	weight (kg)
QUATTRO V EN124 B125 	Ductile iron cover and frame, B125 to EN124:1994, Closed keyways, 4 rubber cushioning inserts fixed to the frame for stability and to minimise noise Slide out operation, Single seal, Locked cover Custom badging available, Third party certified by BSI KM.	528154	QUATTRO 400 VOTC	302 x 302	400 x 400	40	13
		528155	QUATTRO 500 VOTC	402 x 402	500 x 500	40	19
		528156	QUATTRO 600 VOTC	502 x 502	600 x 600	40	28
		528450	QUATTRO 700 VOTC	602 x 602	700 x 700	42	42
RACoon EN124 B125 	Ductile iron cover and frame B125 to EN124:1994, Closed keyways, 4 rubber pads for stability and to minimise noise Slide out operation, Single seal, Custom badging available, Third party certified by BSI KM.	710062	RACoon	600 x 600	700 x 700	34	41
CELTIC EN124 B125 	Ductile iron cover and frame B125 to EN124:1994, Closed keyways, 4 rubber pads for stability and to minimise noise Unique Celtic design on cover Sealed keyways Third party certified by BSI KM.	710061	CELTIC	600 x 600	700 x 700	34	41



INFRARISER® adjustment risers

Rubber composite adjustment risers which enable cast iron frames and covers to be easily adjusted to the surrounding road surface.



As a result of the **INFRARISER®** adjustment riser products compression properties, traffic load is more uniformly distributed over the entire supporting structure, rather than concentrated, as in the case when concrete or bricks are used exclusively. Over time heavy traffic can damage the area surrounding unprotected manhole covers.

INFRARISER® adjustment riser

a new concept with numerous advantages

Cost effective

Prolongs structure life and dramatically reduces water infiltration. Reduces traffic vibration damage and protects against load concentration stress.

Fast

Perfect grade adjustment in seconds

Safe

Lightweight and easy to handle

Durable

Will not break, split, rot, crack or chip – lasts indefinitely

Environmentally friendly

Made from 100% recycled raw materials

Wide selection available

Available on round, square and rectangular designs in either a flat or tapered risers

INFRARISER®

composite rubber adjustment risers

Made from 100 % raw materials
92% of which is discarded tyres

100%
compatible

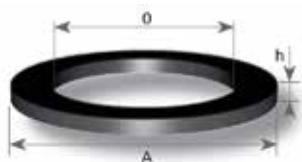
with all 600 mm
access covers on
the market

**Ease
of Use**

Lightweight and easy
to install

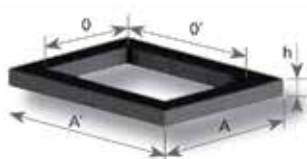
INFRARISER® products are valuable tools in the struggle to maintain the integrity of sewer infrastructure installations

Circular flat



Product code	Inside diameter O in mm	Outside diameter A in mm	Thickness h in mm	Weight in kg
540470 01	Ø660	864	6	2
540469 01	Ø660	864	13	4
540468 01	Ø660	864	25	8

Square flat



Product code	Inside diameter O in mm	Outside diameter A in mm	Thickness h in mm	Weight in kg
540473 01	603 x 603	838 x 838	6	3
540472 01	603 x 603	838 x 838	13	5
540471 01	603 x 603	838 x 838	25	10

Strengthen Your Identity

To further promote your identity you can customise your castings. Customised covers are gaining in popularity and they can feature a logo, crest, mascot or popular characteristic. We currently provide custom logo and lettered covers for many local authorities and utility providers in a multitude of cover designs.

Customising your covers lets you specify the city, corporation and type of structure beneath the cover and are available on a wide selection of manhole covers.

For further information on personalised cover markings please contact our Sales Team.

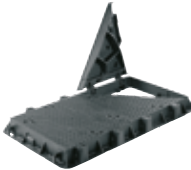



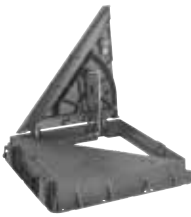





Cable, Utilities and Various Network Solutions


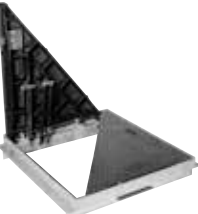





- B2** Access Covers
F900
- B3** Modular Access Covers
600kN
400kN
D400
C250
- B4** Pit covers
- B5** Gas
Broadband
- B7** Public Lighting
D400
B125
- B7** CCTV
D400
- B8** Electrical Cable Covers
- B10** Ermatic Range
F900
E600
D400
C250
B125

Network Solutions

Access covers NF	features How to specify product	product code	reference	covers qty	position	clear opening (mm)	overall dimensions (mm)	height (mm)	weight (kg)
F900									
<div>DT9S A</div> <div>F900</div> <div></div>	F900 hinged access covers One piece monoblock construction as cast Blocking at 90° for safety 3 -point suspension Monoblock construction frame Options : - OTCI Turnbuckle locking system - Assisted opening by gas strut	522623	DT9S 075075 A	1		750 x 750	950 x 950	120	195
		520599	DT9S 150075 A	2		1500 x 750	1660 x 950	150	396
		528976	DT9S 225075 A	3		2250 x 750	2410 x 950	150	576
		OPTION LOCKING SYSTEM REF V : OPTION OPENING ASSISTANCE AND LOCKING SYSTEM REF VH							
<div>TI9S AVH</div> <div>F900</div> <div></div>	F900 hinged access covers Blocking at 90° for safety 3-point suspension One piece monoblock construction as cast TI locking system Assisted opening by gas strut Options: Lifting Arms Locking key Ergonomic hooked double handle (per pair) Heavy duty TI locking key	526007	TI9S 100 100 AVH11	1		1000 x 1000	1200 x 1160	180	385
		517082	ERGONOMIC LIFTING ARMS						
		514260	TI KEY						
<div>8190 HINGED HATCH</div> <div>900 kN</div> <div></div>	900kN hinged manhole cover and frame Cover blocking at 90° for safety Square cover with neoprene cushioning insert Monobloc top flange frame as cast Covers are locked with hexagonal bolts Assisted opening with stainless steel mechanical spring struts as standard Options: Lifting Keys Frame top or bottom flange for single covers	819581B 01	8195			610 x 610	840 x 840	127	147
		819680B 01	8196			762 x 762	1003 x 1003	127	215
		819681B03	8196 DOUBLE			762 x 1574	1003 x 1820	127	468
		819761B 01	8197			915 x 915	1146 x 1146	127	308
		819760B 01	8197 DOUBLE			915 x 1880	1146 x 2115	127	649
		819760B 02	8198			1219 x 1219	1461 x 1429	152	444
<div>SE9S AV</div> <div>F900</div> <div></div>	F900 hinged cover and frame with covers blocking at 90° for security Triangular seating Monobloc frame Covers are locked with HM12 hexagonal head Options: Lifting Keys	544123	S9S070070AV			700 x 700	960 x 985	150	184
		536761	S9S140070AV			1400 x 700	1680 x 985	150	336

Network Solutions






Modular access covers	features How to specify product	product code	reference	covers qty	position	clear opening (mm)	overall dimensions (mm)	height (mm)	weight (kg)
600kN CT6S 075 A 600kN 	600 kN hinged access covers Blocking at 90° for safety 3 -point suspension Galvanised steel frame Hinged cast iron covers Blocking at 90° for safety Options: TI locking system Assisted opening by gas strut Fall protection safety grid	61760020	CT6S 075 076 A	1		750 x 760	960 x 950	152	194
		61760021	CT6S 150 076 A	2		1502 x 760	960 x 1702	152	354
		61760023	CT6S 225 076 A	3		2255 x 760	960 x 2455	152	512
		61760065	CT6S 150 163 A	4		1502 x 1635	1652 x 1825	290	898
D400 MILESIO 	D400 hinged access covers One piece monoblock construction as cast Blocking at 90° for safety 3 -point suspension Monoblock construction frame with shuttering skirt TI security locking with slam lock Assisted opening with gas strut Key supplied	536279	DT4S100100 AVPCH	1		1000 x 1000	1150 x 1210	200	293
400kN CT4S 100 AVPCH 400kN 	400 kN hinged access covers Blocking at 90° for safety 3 -point suspension Galvanised steel frame Hinged cast iron covers Blocking at 90° for safety MTV Turnbuckle locking system Assisted opening by gas strut TI key provided separately Options : Fall protection grids	61760023	CT4 S 100 100 AHVPC	1		1000 x 1000	1140 x 1140	190	293
		61760008	CT4 S 200 100 AHVPC	2		2000 x 1000	2140 x 1140	190	512
		61760069	CT4 S 300 100 AHVPC	3		3000 x 1000	3140 x 1140	190	785
		61760035	CT4 S 200 215 AHVPC	4		2000 x 2155	2151 x 2289	290	1408
		61760066	CT4 S 300 213 AHVPC	6		3000 x 2139	3151 x 2289	290	2044
		61760036	CT4 S 200 441 AHVPC	8		2000 x 4417	2151 x 4417	290	2860
			CT4 S 300 327 AHVPC	9		3000 x 3278	3151 x 3428	290	3097
CT4S 075 A 400kN 	400 kN hinged access covers Blocking at 90° for safety 3 -point suspension Galvanised steel frame Hinged cast iron covers Blocking at 90° for safety Options: TI locking system Assisted opening by gas strut Fall protection safety grid	61760001	CT4S 075 076 A	1		750 x 760	960 x 950	152	183
		61760003	CT4S 150 076 A	2		1502 x 760	960 x 1702	152	334
		61760009	CT4S 225 076 A	3		2255 x 760	960 x 2455	152	482
		61760054	CT4S 150 163 A	4		1502 x 1635	1652 x 1825	290	845
		61760045	CT4S 225 163 A	6		1635 x 2255	1825 x 2405	290	1230
		61760051	CT4S 150 251 A	6		1502 x 2510	1652 x 2700	290	1271
		61760082	CT4S 150 338 A	8		1502 x 3380	1652 x 3570	290	1695
			CT4S 225 251 A	9		2255 x 2510	2405 x 2700	290	1882

We can propose galvanised steel or stainless steel security equipment.
Contact our Sales Team.

Network Solutions

Modular access solutions	features How to specify product	product code	reference	clear opening (mm)	overall dimensions (mm)	height (mm)	weight (kg)
190 HINGED HATCH 400 kN 	400kN hinged manhole cover and frame Cover blocking at 90° for safety Square cover with neoprene cushioning insert Monobloc top flange frame as cast Covers are locked with hexagonal bolts Assisted opening with stainless steel mechanical spring struts as standard Options: Lifting Keys Frame top or bottom flange for single covers	821541B 01 821641B 01 821641B03 821721B 01 821721B 01 821821B 02	8215 8216 8216 DOUBLE 8217 8217 DOUBLE 81218	610 x 610 762 x 762 762 x 1574 915 x 915 915 x 1880 1220 x 1220	840 x 840 1003 x 1003 1003 x 1820 1146 x 1146 1146 x 2115 1429 x 1460	127 127 127 127 127 152	146 176 632 244 522 456
D400 CT4B D400 	400kN modular access covers 3-point suspension concrete filled on site galvanised steel frame Fitted with a rubber bush to minimise lateral movement	Dimensions available on demand. Contact our Sales team.					
C250 PQ 750 C250 	C250 NF duct cover 0,75 m long Installation angle iron 30 x 30 x 3 mm or on cast iron frame (see page E9)	502484 502485 502486 502487 513150 502490	PQ 752 B PQ 753 PQ 754 PQ 755 PQ 756 PQ 757	140 240 340 440 540 640	750 x 250 750 x 300 750 x 400 750 x 500 750 x 600 750 x 700	27 27 27 27 27 27	20,6 27,7 32,6 39,5 51,5 56,6
C250 - Pit covers							
3T C250 	C250 NF Cover and frame Cover and removable plug provided with a polychloroprene seal fitted in peripheral «U» shape to prevent ingress of surface water Film of grease to the machined contact faces of the cover and frame renders the cover waterproof under normal conditions Ø250 mm removable plug EM handling key sold as an accessory Options : Locking bolts either CHC or OTCN	540127 540145 502402	3T 060060 3T 090090 Ermatic lifting arms	600 x 600 900 x 900	710 x 800 1010 x 1100	80 80	111 185
HCIP TJ C250 	C250 NF hinged access cover and frame Cover and plug provided with a polychloroprene seal fitted in peripheral «U» shape to prevent ingress of surface water Ø 258 mm removable plug	515761	HCIP 800 TJ	700 x 700	920 x 892	75	105



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	features How to specify product	product code	description	clear opening (mm)	overall dimensions (mm)	height (mm)	total (kg)
STOPCOCK EN124 B125 	Material – ductile iron cover and frame Hinged cover with precision drilled holes and spring hinge pins	710605	STOPCOCK GAS	130 x 130	200 x 190	50	4
D400							
MINK GAS EN124 D400 	Material – ductile iron cover and frame Locked by rotating cover Options: Security chain available Yellow coated cover available	513897	MINK GAS	Ø188	Ø340	130	13
CHEETAH GAS EN124 D400 	Material – ductile iron cover and frame Double triangular covers loosely connected for non-rock performance Open keyholes Options: Security chain available Available in Yellow	710600	CHEETAH GAS	445 x 280	645 x 480	100	43
Broadband							
C2 EN124 E600 	Material - ductile iron cover and frame Double triangular hinged covers with mono-block frame, welded frame on the 1200 x 600 covers and frames Safety blocking to prevent accidental cover closure Cover parts hinge back to 110° and lock at 90° to prevent it from freely closing Covers are removable from the frame vertically	540829 01	T16S 120060 NDP	1200 x 600	1394 x 770	120	162
D400							
C3 EN124 D400 	Material - ductile iron cover and frame Double triangular hinged covers with mono-block frame, Safety blocking to prevent accidental cover closure Cover parts hinge back to 110° and lock at 90° to prevent it from freely closing Covers are removable from the frame vertically	526669	DT4S 183068 NDP	1836 x 665	2017 x 915	150	381
C1 EN124 D400 	Material - ductile iron cover and frame Double triangular hinged covers with mono-block frame, Safety blocking to prevent accidental cover closure Cover parts hinge back to 110° and lock at 90° to prevent it from freely closing Covers are removable from the frame vertically	526668	T14S 060060 NDP	600 x 600	745 x 770	100	85

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B125 Traffic	features How to specify product	product code	description	clear opening (mm)	overall dimensions (mm)	height (mm)	total (kg)
JB4 TRAFFIC EN124 B125 	Material - ductile iron cover in a galvanised steel frame Sealed keyways Single cover Locking arrangement (patented design) Options: Available in multiple units Can be supplied unlocked	710916	JB4 TRAFFIC	915 x 445	1110 x 640	52	59
JB2 TRAFFIC EN124 B125 	Material - ductile iron cover in a galvanised steel frame Sealed keyways Single cover Locking arrangement (patented design) Options: Can be supplied unlocked	710093	JB2 TRAFFIC	730 x 260	920 x 455	52	27
JB1 TRAFFIC EN124 B125 	Material - ductile iron cover in a galvanised steel frame Sealed keyways Single cover Locking arrangement (patented design) Options: Can be supplied unlocked	710092 719801	JB1 TRAFFIC 18 X 18	385 x 260 450 x 450	590 x 455 610 x 610	52 52	16 26
D400							
SCORPION CATV EN124 D400 	Material - ductile iron cover and frame Double triangular covers loosely connected for non-rock performance Unique seating to limit lateral cover movement Sealed keyways Options: Locked Extra deep 150mm frame for added rigidity	710015	SCORPION CATV	600 x 600	760 x 760	100	98
CHEETAH CATV EN124 D400 	Material - ductile iron cover and frame Double triangular covers loosely connected for non-rock performance Open Keyways Both covers badged CATV Options: Security chain available Stainless steel coupling bolts	710420	CHEETAH CATV	445 x 280	645 x 480	100	42

Network Solutions

B125	features How to specify product	product code	description	clear opening (mm)	overall dimensions (mm)	height (mm)	total (kg)
LEOPARD CATV EN124 B125 	Material - ductile iron cover and frame Single cover marked CATV Open keyways Options: Security chain available	710150	LEOPARD CATV	445 x 275	575 x 410	65	21
Public Lighting							
PYTHON Public Lighting EN124 D400 	Material - ductile iron cover and frame Double triangular covers loosely connected for non-rock performance Unique seating to limit lateral movement and wear Extra deep 150mm frame for added rigidity Sealed keyways Options: Ventilated cover available	719520	Square Frame Opening PYTHON PUBLIC LIGHTING	600 x 600	750 x 750	150	85
FJ 60/45 Public Lighting EN124 B125 	Material - ductile iron cover in a galvanised steel frame Sealed keyways Locking arrangement (patented design) Options: HDPE Box available Can be supplied unlocked Available unbadged	710438	FJ 60/45	562 x 412	775 x 625	52	31
CCTV							
PYTHON CCTV EN124 D400 	Material - ductile iron cover and frame Double triangular covers loosely connected for non-rock performance Unique seating to limit lateral movement and wear Sealed keyways Options: Ventilated cover available Extra deep 150mm frame for added rigidity	719519	Square Frame Opening PYTHON CCTV	600 x 600	750 x 750	100	85

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Electrical Cable E600	features Howto specify product	product code	description	clear opening (mm)	overall (mm)	height (mm)	total (kg)
RHINO ESB EN124 E600 	Material - ductile iron cover and frame Double triangular covers loosely connected for non-rock performance Open keyways Special seating to avoid lateral movement Locked	544207 01	DT6S RHINO ESB	1070 x 750	1220 x 950	150	314
B125							
VC3 ESB EN124 B125 	Material - ductile iron covers in a galvanised steel frame Sealed keyways Three covers with removable trimmer bars Locking arrangement (patented design) Earthing connection points on frame Warning markings and symbols on covers Options: Unbadged covers available	716006	VC3 ESB	1120 x 765	1380 x 1065	56	155
VC2 ESB EN124 B125 	Material - ductile iron covers in a galvanised steel frame Sealed keyways Two covers with removable trimmer bar Locking arrangement (patented design) Earthing connection points on frame Removable frame end bar to assist cable entry into minipillars Warning markings and symbols on covers Options: Unbadged covers available	716004	VC2 ESB	765 x 730	960 x 875	56	103
VC1 ESB EN124 B125 	Material - ductile iron covers in a galvanised steel frame Sealed keyways Single cover Locking arrangement (patented design) Earthing connection points on frame Warning markings and symbols on covers Options: Unbadged covers available	716002	VC1 ESB	765 x 315	960 x 515	56	52

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Minipillar Vault, Cover and Frame

Specified & approved by the ESB

2 part VC2 cover for fast and easy installation
EN124 B125 - Cover & Frame
Knockout Duct enteries available

Part Codes:

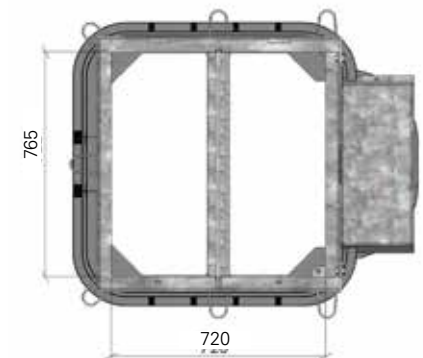
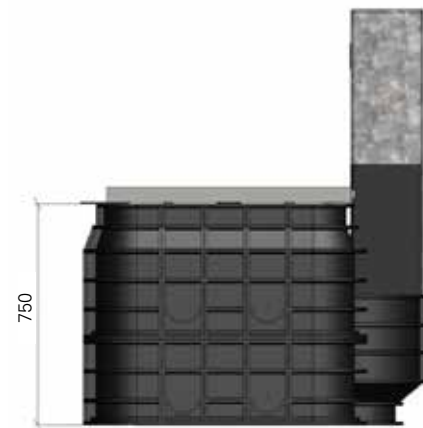
716004 - VC2 C&F. B125

Also available:

716002 - VC1 C&F. B125

716006 - VC3 C&F. B125

7E008 - HDPE pre-formed chamber



Also available:

SC1 CHAMBER & COVER

Clear opening: 385 x 260 mm

Prepared to ESB Specification

Fast & Easy Installation

Preferred system for hockey stick/sub-duct installation

Part Codes:

716013 - SC1 C&F ESB + 18" Box. B125

716015 - SC1 C&F ESB B125

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ERMATIC® MODULAR RANGE

Ermatic is a comprehensive and highly specified range of access covers for diverse underground services

Sewerage: inspection pits, access shafts for large openings.

Telecommunications: cable joint chambers.

Electricity: lighting, signals, transformer pits, cable joint boxes.

Water Industry: valve chambers, manifold chambers and meter chambers.

In the following applications:

Airports and ports

Railways

Power stations

Water treatment and purification plants

Manufacturing plants

Stadiums, Exhibition centres, Tunnels, etc.

Modular units

The use of modular elements allow for a vast range of sizes:

Frame elements (side frames and end plates) are assembled using bolts and aluminum joints to provide linear openings for even the longest ducts.

Above clear opening spans of 1200 mm, Ermatic units use removable beams supported in boxes. This allows units to be built to suit large chambers.

The horizontal and vertical faces of the cover and frame are machined to give metal-to-metal contact between the seating faces, within a tolerance of 0.2 mm.

Stability and Sealing

Stability: when correctly installed, Ermatic products are non-rocking, silent under traffic and prevent the ingress of dust and debris.

Sealing: the addition of a film of grease to the machined contact faces of the cover and frame renders the Ermatic cover system surface watertight under normal rainwater conditions.

Types of Surface Finish

Designed for a wide range of applications, the Ermatic range offers a choice of covers to suit every specification of performance and/or appearance.



Solid top cover with anti-slip surface

This cover offers equal performance whilst being lighter than recessed covers of a comparable size when filled with concrete. Installation costs are reduced and the performance is not compromised by the quality of the concrete infill.

Cover recessed for concrete infill

In classes B 125 and C 250, the ribs are positioned below the surface of the cover to permit the installation of thin paving. This type of cover is particularly suited to large openings where aesthetic consideration is a priority. Concrete infill shall be undertaken in accordance with the requirements of EN 124: 1994 and with the specifications detailed in the main Ermatic Catalogue.

Ease of Handling

Ease of handling: Covers slide in and out of the frame along greased, machined seating, requiring no vertical lift. Ermatic key: ergonomically designed to assist with safety. Further reduces the effort required to remove and replace the covers.

Universal keyways:

For use with many different types of common lifting keys. Fitted with polyethylene blanking plugs to prevent the entry of debris or concrete.

Ribs extend below the underside of the cover

To protect the machined seating, the reinforcing webs are deeper than the cover. This also prevents any greased surfaces coming into contact with the floor (except for some B 125 recessed covers).

Locking of the covers

In order to ensure an easier and more optimised installation of our Ermatic systems, it has been decided to supply all the products in D400 systematically locked. For E600 and F900 products locking is recommended.

To facilitate the levelling of the Ermatic systems, adjusting bolts are supplied with the products. These bolts will allow, if necessary, you to adjust the height of the system to the final level and correct any possible defects of the civil works.

Standard Locking (VCHC)
Security Locking (VOTC)



Ermatic type lifting arms
502402
OTC locking key
514827

Network Solutions

B125									
Recessed covers for paviour infill									
clear opening axb (mm)	frame overall dimensions length x width x height (mm)	number of covers	reference	weight (kg)			reference	weight (kg)	
300 x 300	410 x 500 x 80	■					ER 2S 030 030	48	
620 x 300	730 x 500 x 80	■ ■					ER 2S 062 030	85	
750 x 300	860 x 500 x 80	■ ■ ■	ER 2R 075 030	69					
1520 x 300	630 x 500 x 80	■ ■ ■	ER 2R 152 030	129					
2290 x 300	2400 x 500 x 80	■ ■ ■ ■	ER 2R 229 030	180					
450 x 450	560 x 650 x 80	■	ER 2R 045 045	59			ER 2S 045 045	67	
600 x 450	710 x 650 x 80	■	ER 2R 060 045	77					
900 x 450	1010 x 650 x 80	■	ER 2R 090 045	99					
920 x 450	1030 x 650 x 80	■ ■	ER 2R 092 045	111			ER 2S 092 045	122	
1070 x 450	1180 x 650 x 80	■ ■ ■	ER 2R 107 045	120					
1220 x 450	1330 x 650 x 80	■ ■ ■	ER 2R 122 045	141					
1390 x 450	1500 x 650 x 80	■ ■ ■ ■	ER 2R 139 045	160			ER 2S 139 045	173	
1820 x 450	1930 x 650 x 80	■ ■ ■ ■	ER 2R 182 045	179					
1840 x 450	1950 x 650 x 80	■ ■ ■ ■	ER 2R 184 045	196					
600 x 600	710 x 800 x 80	■	ER 2R 060 060	87			ER 2S 060 060	102	
750 x 600	860 x 800 x 80	■	ER 2R 075 060	101			ER 2S 075 060	110	
900 x 600	1010 x 800 x 80	■	ER 2R 090 060	117					
1220 x 600	1330 x 800 x 80	■ ■ ■	ER 2R 122 060	158			ER 2S 122 060	188	
1370 x 600	1480 x 800 x 80	■ ■ ■	ER 2R 137 060	172					
1520 x 600	1630 x 800 x 80	■ ■ ■	ER 2R 152 060	187			ER 2S 152 060	204	
1670 x 600	1780 x 800 x 80	■ ■ ■	ER 2R 167 060	203					
1820 x 600	1930 x 800 x 80	■ ■ ■	ER 2R 182 060	219					
1840 x 600	1950 x 800 x 80	■ ■ ■ ■	ER 2R 184 060	229			ER 2S 184 060	274	
1990 x 600	2100 x 800 x 80	■ ■ ■ ■	ER 2R 199 060	243					
2140 x 600	2250 x 800 x 80	■ ■ ■ ■	ER 2R 214 060	258					
2290 x 600	2400 x 800 x 80	■ ■ ■ ■	ER 2R 229 060	273			ER 2S 229 060	298	
2440 x 600	2550 x 800 x 80	■ ■ ■ ■	ER 2R 244 060	288					
2590 x 600	2700 x 800 x 80	■ ■ ■ ■	ER 2R 259 060	304					
2740 x 600	2850 x 800 x 80	■ ■ ■ ■	ER 2R 274 060	320					
600 x 750	710 x 950 x 80	■	ER 2R 060 075	101					
750 x 750	860 x 950 x 80	■	ER 2R 075 075	116			ER 2S 075 075	139	
1220 x 750	1330 x 950 x 80	■ ■ ■	ER 2R 122 075	182					
1370 x 750	1480 x 950 x 80	■ ■ ■	ER 2R 137 075	198					
1520 x 750	1630 x 950 x 80	■ ■ ■	ER 2R 152 075	213			ER 2S 152 075	259	
1840 x 750	1950 x 950 x 80	■ ■ ■ ■	ER 2R 184 075	264					
1990 x 750	2100 x 950 x 80	■ ■ ■ ■	ER 2R 199 075	279					
2140 x 750	2250 x 950 x 80	■ ■ ■ ■	ER 2R 214 075	294					
2290 x 750	2400 x 950 x 80	■ ■ ■ ■	ER 2R 229 075	309			ER 2S 229 075	379	
600 x 900	710 x 1100 x 80	■	ER 2R 060 090	116			ER 2S 060 090	130	
750 x 900	860 x 1100 x 80	■	ER 2R 075 090	134			ER 2S 075 090	138	
900 x 900	1010 x 1100 x 80	■					ER 2S 090 090	190	
1220 x 900	1330 x 1100 x 80	■ ■ ■	ER 2R 122 090	209			ER 2S 122 090	237	
1370 x 900	1480 x 1100 x 80	■ ■ ■	ER 2R 137 090	227			ER 2S 137 090	247	
1520 x 900	1630 x 1100 x 80	■ ■ ■	ER 2R 152 090	245			ER 2S 152 090	254	
1670 x 900	1780 x 1100 x 80	■ ■ ■					ER 2S 167 090	307	
1820 x 900	1930 x 1100 x 80	■ ■ ■					ER 2S 182 090	357	
1840 x 900	1950 x 1100 x 80	■ ■ ■ ■	ER 2R 184 090	303			ER 2S 184 090	346	
1990 x 900	2100 x 1100 x 80	■ ■ ■ ■	ER 2R 199 090	320			ER 2S 199 090	355	
2140 x 900	2250 x 1100 x 80	■ ■ ■ ■	ER 2R 214 090	338			ER 2S 214 090	362	
2290 x 900	2400 x 1100 x 80	■ ■ ■ ■	ER 2R 229 090	356			ER 2S 229 090	367	
2440 x 900	2550 x 1100 x 80	■ ■ ■ ■					ER 2S 244 090	466	
2590 x 900	2700 x 1100 x 80	■ ■ ■ ■					ER 2S 259 090	473	
2740 x 900	2850 x 1100 x 80	■ ■ ■ ■					ER 2S 274 090	529	
500 x 1000	680 x 1200 x 80	■	ER 2R 050 100	138					
1020 x 1000	1200 x 1200 x 80	■ ■ ■	ER 2R 102 100	246					
1540 x 1000	1720 x 1200 x 80	■ ■ ■ ■	ER 2R 154 100	357					
2060 x 1000	2240 x 1200 x 80	■ ■ ■ ■ ■	ER 2R 206 100	467					

*VCHC locking system

Network Solutions

C250			Recessed covers				Solid top covers			
clear opening axb (mm)	frame overall dimensions length x width x height (mm)	number of covers	reference	weight (kg)			reference	weight (kg)		
300 x 300	410 x 500 x 80	■					ER 3S 030 030	48		
750 x 300	860 x 500 x 80	■	ER 3R 075 030	69						
940 x 300	1050 x 500 x 80	■ ■ ■					ER 3S 094 030	123		
1520 x 300	1630 x 500 x 80	■ ■	ER 3R 152 030	129						
2290 x 300	2400 x 500 x 80	■ ■ ■	ER 3R 229 030	188						
450 x 450	560 x 650 x 80	■	ER 3R 045 045	69			ER 3S 045 045	67		
600 x 450	710 x 650 x 80	■	ER 3R 060 045	77						
900 x 450	1010 x 650 x 80	■	ER 3R 090 045	100						
920 x 450	1030 x 650 x 80	■ ■	ER 3R 092 045	125			ER 3S 092 045	122		
1070 x 450	1180 x 650 x 80	■ ■	ER 3R 107 045	133						
1220 x 450	1330 x 650 x 80	■ ■	ER 3R 122 045	141						
1390 x 450	1500 x 650 x 80	■ ■ ■	ER 3R 139 045	182			ER 3S 139 045	176		
1520 x 450	1630 x 650 x 80	■ ■	ER 3R 152 045	164						
1540 x 450	1650 x 650 x 80	■	ER 3R 154 045	190						
1820 x 450	1930 x 650 x 80	■ ■ ■	ER 3R 182 045	187						
1840 x 450	1950 x 650 x 80	■ ■ ■	ER 3R 184 045	205						
2140 x 450	2250 x 650 x 80	■ ■ ■	ER 3R 214 045	228						
2440 x 450	2550 x 650 x 80	■ ■ ■	ER 3R 244 045	251						
2740 x 450	2850 x 650 x 80	■ ■ ■	ER 3R 274 045	278						
600 x 600	710 x 800 x 80	■	ER 3R 060 060	96			ER 3S 060 060	102		
750 x 600	860 x 800 x 80	■	ER 3R 075 060	112						
900 x 600	1010 x 800 x 80	■	ER 3R 090 060	120						
1220 x 600	1330 x 800 x 80	■ ■	ER 3R 122 060	176			ER 3S 122 060	188		
1370 x 600	1480 x 800 x 80	■ ■	ER 3R 137 060	192						
1520 x 600	1630 x 800 x 80	■ ■	ER 3R 152 060	209						
1670 x 600	1780 x 800 x 80	■ ■	ER 3R 167 060	217						
1820 x 600	1930 x 800 x 80	■ ■	ER 3R 182 060	209						
1840 x 600	1950 x 800 x 80	■ ■ ■	ER 3R 184 060	257			ER 3S 184 060	274		
1990 x 600	2100 x 800 x 80	■ ■ ■	ER 3R 199 060	273						
2140 x 600	2250 x 800 x 80	■ ■ ■	ER 3R 214 060	289						
2290 x 600	2400 x 800 x 80	■ ■ ■	ER 3R 229 060	305						
2440 x 600	2550 x 800 x 80	■ ■ ■	ER 3R 244 060	313						
2590 x 600	2700 x 800 x 80	■ ■ ■	ER 3R 259 060	322						
2740 x 600	2850 x 800 x 80	■ ■ ■	ER 3R 274 060	330						
600 x 750	710 x 950 x 80	■	ER 3R 060 075	112						
750 x 750	860 x 950 x 80	■	ER 3R 075 075	128			ER 3S 075 075	139		
1220 x 750	1330 x 950 x 80	■ ■	ER 3R 122 075	205						
1370 x 750	1480 x 950 x 80	■ ■	ER 3R 137 075	221						
1520 x 750	1630 x 950 x 80	■ ■	ER 3R 152 075	236			ER 3S 152 075	259		
1840 x 750	1950 x 950 x 80	■ ■ ■	ER 3R 184 075	298						
1990 x 750	2100 x 950 x 80	■ ■ ■	ER 3R 199 075	314						
2140 x 750	2250 x 950 x 80	■ ■ ■	ER 3R 214 075	330						
2290 x 750	2400 x 950 x 80	■ ■ ■	ER 3R 229 075	346			ER 3S 229 075	379		
600 x 900	710 x 1100 x 80	■	ER 3R 060 090	135			ER 3S 060 090	130		
750 x 900	860 x 1100 x 80	■	ER 3R 075 090	154			ER 3S 075 090	138		
900 x 900	1010 x 1100 x 80	■					ER 3S 090 090	190		
1220 x 900	1330 x 1100 x 80	■ ■	ER 3R 122 090	248			ER 3S 122 090	237		
1370 x 900	1480 x 1100 x 80	■ ■	ER 3R 137 090	267			ER 3S 137 090	247		
1520 x 900	1630 x 1100 x 80	■ ■	ER 3R 152 090	286			ER 3S 152 090	254		
1670 x 900	1780 x 1100 x 80	■ ■					ER 3S 167 090	307		
1820 x 900	1930 x 1100 x 80	■ ■					ER 3S 182 090	357		
1840 x 900	1950 x 1100 x 80	■ ■ ■	ER 3R 184 090	360			ER 3S 184 090	345		
1990 x 900	2100 x 1100 x 80	■ ■ ■	ER 3R 199 090	380			ER 3S 199 090	354		
2140 x 900	2250 x 1100 x 80	■ ■ ■	ER 3R 214 090	398			ER 3S 214 090	362		
2290 x 900	2400 x 1100 x 80	■ ■ ■	ER 3R 229 090	417			ER 3S 229 090	367		
2440 x 900	2550 x 1100 x 80	■ ■ ■					ER 3S 244 090	466		
2590 x 900	2700 x 1100 x 80	■ ■ ■					ER 3S 259 090	473		
2740 x 900	2850 x 1100 x 80	■ ■ ■					ER 3S 274 090	524		
500 x 1000	680 x 1200 x 80	■	ER 3R 050 100	136						
1020 x 1000	1200 x 1200 x 80	■ ■	ER 3R 102 100	246						
1540 x 1000	1720 x 1200 x 80	■ ■ ■ ■	ER 3R 154 100	357						
2060 x 1000	2240 x 1200 x 80	■	ER 3R 206 100	467						
750 x 1200	860 x 1400 x 80	■	ER 3R 075 120	189						
1520 x 1200	1630 x 1400 x 80	■ ■	ER 3R 152 120	347						
2290 x 1200	2400 x 1400 x 80	■ ■ ■	ER 3R 229 120	506						

*VCHC locking system

Network Solutions

C250			Recessed covers				Solid top covers			
clear opening axb (mm)	frame overall dimensions length x width x height (mm)	number of covers	reference	weight (kg)			reference	weight (kg)		
600 x 600	710 x 800 x 80	■	ER 3P 060 060	100			ER 3T 060 060	108		
1220 x 600	1330 x 800 x 80	■ ■	ER 3P 122 060	184			ER 3T 122 060	195		
1840 x 600	1950 x 800 x 80	■ ■ ■	ER 3P 184 060	268			ER 3T 184 060	287		
900 x 900	1010 x 1100 x 80	■ ■					ER 3T 090 090	197		
1820 x 900	1930 x 1100 x 80	■ ■ ■					ER 3T 182 090	365		
2740 x 900	2850 x 1100 x 80	■ ■ ■ ■					ER 3T 274 090	537		

one removable plug per unit

D400			Recessed covers				Solid top covers			
clear opening axb (mm)	frame overall dimensions length x width x height (mm)	number of covers	reference	weight (kg)			reference	weight (kg)		
450 x 450	620 x 630 x 125	■					ER 4S 045 045 VCHC	86		
920 x 450	1090 x 630 x 125	■ ■					ER 4S 092 045 VCHC	152		
1390 x 450	1560 x 630 x 125	■ ■ ■					ER 4S 139 045 VCHC	217		
600 x 600	770 x 780 x 125	■					ER 4S 060 060 VCHC	124		
600 x 600	770 x 820 x 150	■	ER 5R 060 060 VCHC	142						
750 x 600	920 x 820 x 150	■	ER 5R 075 060 VCHC	157						
1220 x 600	1390 x 780 x 125	■ ■					ER 4S 122 060 VCHC	220		
1220 x 600	1390 x 820 x 150	■ ■	ER 5R 122 060 VCHC	253						
1370 x 600	1540 x 820 x 150	■ ■	ER 5R 137 060 VCHC	268						
1520 x 600	1690 x 820 x 150	■ ■	ER 5R 152 060 VCHC	282						
1840 x 600	2010 x 780 x 125	■ ■ ■					ER 4S 184 060 VCHC	317		
1840 x 600	2010 x 820 x 150	■ ■ ■	ER 5R 184 060 VCHC	364						
1990 x 600	2160 x 820 x 150	■ ■ ■	ER 5R 199 060 VCHC	378						
2140 x 600	2310 x 820 x 150	■ ■ ■	ER 5R 214 060 VCHC	393						
2290 x 600	2460 x 820 x 150	■ ■ ■	ER 5R 229 060 VCHC	408						
600 x 750	770 x 970 x 150	■	ER 5R 060 075 VCHC	160						
750 x 750	920 x 930 x 125	■	ER 4R 075 075 VCHC	154			ER 4S 075 075 VCHC	171		
750 x 750	920 x 970 x 150	■	ER 5R 075 075 VCHC	186						
1220 x 750	1390 x 970 x 150	■ ■	ER 5R 122 075 VCHC	286						
1370 x 750	1540 x 970 x 150	■ ■	ER 5R 137 075 VCHC	312						
1520 x 750	1690 x 970 x 150	■ ■	ER 5R 152 075 VCHC	339						
1520 x 750	1690 x 930 x 125	■ ■	ER 4R 152 075 VCHC	277						
1520 x 750	1690 x 930 x 125	■ ■					ER 4S 152 075 VCHC	311		
1840 x 750	2010 x 970 x 150	■ ■ ■	ER 5R 184 075 VCHC	411						
1990 x 750	2160 x 970 x 150	■ ■ ■	ER 5R 199 075 VCHC	438						
2140 x 750	2310 x 970 x 150	■ ■ ■	ER 5R 214 075 VCHC	464						
2290 x 750	2460 x 930 x 125	■ ■ ■	ER 4R 229 075 VCHC	401			ER 4S 229 075 VCHC	452		
2290 x 750	2460 x 970 x 150	■ ■ ■	ER 5R 229 075 VCHC	491						
800 x 800	970 x 980 x 125	■	ER 4R 080 080 VCHC	185			ER4S 080 080 VCHC	192		
1620 x 800	1790 x 980 x 125	■ ■	ER 4R 162 080 VCHC	345			ER4S 162 080 VCHC	356		
2440 x 800	2610 x 980 x 125	■ ■ ■	ER 4R 244 080 VCHC	503			ER4S 244 080 VCHC	519		
600 x 900	770 x 1080 x 125	■					ER 4S 060 090 VCHC	174		
600 x 900	770 x 1120 x 150	■	ER 5R 060 090 VCHC	200						
750 x 900	920 x 1120 x 150	■	ER 5R 075 090 VCHC	221						
900 x 900	1070 x 1080 x 125	■	ER 4R 090 090 VCHC	224			ER 4S 090 090 VCHC	215		
1220 x 900	1390 x 1080 x 125	■ ■					ER 4S 122 090 VCHC	315		
1220 x 900	1390 x 1120 x 150	■ ■	ER 5R 122 090 VCHC	359						
1370 x 900	1540 x 1120 x 150	■ ■	ER 5R 137 090 VCHC	381						
1520 x 900	1690 x 1080 x 125	■ ■					ER 4S 152 090 VCHC	356		
1520 x 900	1690 x 1120 x 150	■ ■	ER 5R 152 090 VCHC	402						
1820 x 900	1990 x 1080 x 125	■ ■	ER 4R 182 090 VCHC	414			ER 4S 182 090 VCHC	396		
1840 x 900	2010 x 1080 x 125	■ ■ ■					ER 4S 184 090 VCHC	456		
1840 x 900	2010 x 1120 x 150	■ ■ ■	ER 5R 184 090 VCHC	518						
1990 x 900	2160 x 1120 x 150	■ ■ ■	ER 5R 199 090 VCHC	541						
2140 x 900	2310 x 1080 x 125	■ ■ ■					ER 4S 214 090 VCHC	497,4		
2140 x 900	2310 x 1120 x 150	■ ■ ■	ER 5R 214 090 VCHC	563						
2290 x 900	2460 x 1120 x 150	■ ■ ■	ER 5R 229 090 VCHC	584						
2440 x 900	2610 x 1080 x 125	■ ■ ■					ER 4S 244 090 VCHC	538		
2740 x 900	2910 x 1080 x 125	■ ■ ■	ER 4R 274 090 VCHC	604			ER 4S 274 090 VCHC	578		
500 x 1000	600 x 1220 x 150	■	ER 5R 050 100 VCHC	205						
1000 x 1000	1170 x 1180 x 125	■					ER 4S 100 100 VCHC	273		
1020 x 1000	1190 x 1220 x 150	■ ■	ER 5R 102 100 VCHC	363						
1540 x 1000	1710 x 1220 x 150	■ ■ ■	ER 5R 154 100 VCHC	520						
2020 x 1000	2190 x 1180 x 125	■ ■					ER 4S 202 100 VCHC	508,2		
2060 x 1000	2230 x 1220 x 150	■ ■ ■ ■	ER 5R 206 100 VCHC	676						
3040 x 1000	3210 x 1180 x 125	■ ■ ■ ■					ER 4S 304 100 VCHC	743,3		
750 X 1200	950 x 1380 x 125	■	ER 4R 075 120 VCHC	263						
1520 X 1200	1720 x 1380 x 125	■ ■	ER 4R 152 120 VCHC	464						
2290 X 1200	2490 x 1380 x 125	■ ■ ■	ER 4R 229 120 VCHC	666						

Network Solutions

E600			Recessed covers			Solid top covers		
clear opening axb (mm)	frame overall dimensions length x width x height (mm)	number of covers	reference	weight (kg)		reference	weight (kg)	
600 x 600	770 x 820 x 150	■	ER 6R 060 060	142		ER 6S 060 060	163	
750 x 600	920 x 820 x 150	■ ■	ER 6R 075 060	157		ER 6S 075 060	185	
1220 x 600	1390 x 820 x 150	■ ■	ER 6R 122 060	253		ER 6S 122 060	295	
1370 x 600	1540 x 820 x 150	■ ■	ER 6R 137 060	268		ER 6S 137 060	314	
1520 x 600	1690 x 820 x 150	■ ■	ER 6R 152 060	282		ER 6S 152 060	341	
1840 x 600	2010 x 820 x 150	■ ■ ■	ER 6R 184 060	364		ER 6S 184 060	415	
1990 x 600	2160 x 820 x 150	■ ■ ■	ER 6R 199 060	379		ER 6S 199 060	443	
2140 x 600	2310 x 820 x 150	■ ■ ■	ER 6R 214 060	393		ER 6S 214 060	470	
2290 x 600	2460 x 820 x 150	■ ■ ■	ER 6R 229 060	408		ER 6S 229 060	497	
600 x 750	770 x 970 x 150	■	ER 6R 060 075	160		ER 6S 060 075	191	
750 x 750	920 x 970 x 150	■	ER 6R 075 075	186		ER 6S 075 075	231	
1220 x 750	1390 x 970 x 150	■ ■	ER 6R 122 075	286		ER 6S 122 075	361	
1370 x 750	1540 x 970 x 150	■ ■	ER 6R 137 075	312		ER 6S 137 075	383	
1520 x 750	1690 x 970 x 150	■ ■	ER 6R 152 075	339		ER 6S 152 075	429	
1840 x 750	2010 x 970 x 150	■ ■ ■	ER 6R 184 075	411		ER 6S 184 075	509	
1990 x 750	2160 x 970 x 150	■ ■ ■	ER 6R 199 075	438		ER 6S 199 075	543	
2140 x 750	2310 x 970 x 150	■ ■ ■	ER 6R 214 075	464		ER 6S 214 075	576	
2290 x 750	2460 x 970 x 150	■ ■ ■	ER 6R 229 075	491		ER 6S 229 075	628	
600 x 900	770 x 1120 x 150	■	ER 6R 060 090	200		ER 6S 060 090	234	
750 x 900	920 x 1120 x 150	■	ER 6R 075 090	217		ER 6S 075 090	255	
900 x 900	1070 x 1120 x 150	■				ER 6S 090 090	304	
1220 x 900	1390 x 1120 x 150	■ ■	ER 6R 122 090	359		ER 6S 122 090	429	
1370 x 900	1540 x 1120 x 150	■ ■	ER 6R 137 090	372		ER 6S 137 090	449	
1520 x 900	1690 x 1120 x 150	■ ■	ER 6R 152 090	397		ER 6S 152 090	456	
1670 x 900	1840 x 1120 x 150	■ ■				ER 6S 167 090	504	
1820 x 900	1990 x 1120 x 150	■ ■				ER 6S 182 090	568	
1840 x 900	2010 x 1120 x 150	■	ER 6R 184 090	518		ER 6S 184 090	606	
1990 x 900	2160 x 1120 x 150	■ ■ ■	ER 6R 199 090	526		ER 6S 199 090	645	
2140 x 900	2310 x 1120 x 150	■ ■ ■	ER 6R 214 090	552		ER 6S 214 090	645	
2290 x 900	2460 x 1120 x 150	■ ■ ■	ER 6R 229 090	578		ER 6S 229 090	665	
2440 x 900	2610 x 1120 x 150	■ ■ ■				ER 6S 244 090	713	
2590 x 900	2760 x 1120 x 150	■ ■ ■				ER 6S 259 090	760	
2740 x 900	2910 x 1120 x 150	■ ■ ■				ER 6S 274 090	808	
500 x 1000	670 x 1220 x 150	■	ER 6R 050 100	197				
1020 x 1000	1190 x 1220 x 150	■ ■	ER 6R 102 100	363				
1540 x 1000	1710 x 1220 x 150	■ ■ ■	ER 6R 154 100	499				
2060 x 1000	2230 x 1220 x 150	■ ■ ■ ■	ER 6R 206 100	676				
750 X 1200	950 x 1380 x 125	■	ER 6R 075 120	263				
1520 X 1200	1720 x 1380 x 125	■ ■	ER 6R 152 120	464				
2290 X 1200	2490 x 1380 x 125	■ ■ ■	ER 6R 229 120	666				

*VCHC locking system

Network Solutions

F900			Recessed covers			Solid top covers		
clear opening axb (mm)	frame overall dimensions length x width x height (mm)	number of covers	reference	weight (kg)		reference	weight (kg)	
600 x 600	770 x 820 x 150	■	ER 9R 060 060	142		ER 9S 060 060	158	
750 x 600	920 x 820 x 150	■	ER 9R 075 060	157		ER 9S 075 060	191	
1220 x 600	1390 x 820 x 150	■ ■	ER 9R 122 060	253		ER 9S 122 060	286	
1370 x 600	1540 x 820 x 150	■ ■	ER 9R 137 060	268		ER 9S 137 060	314	
1520 x 600	1690 x 820 x 150	■ ■	ER 9R 152 060	282		ER 9S 152 060	352	
1840 x 600	2010 x 820 x 150	■ ■ ■	ER 9R 184 060	334		ER 9S 184 060	415	
1990 x 600	2160 x 820 x 150	■ ■ ■	ER 9R 199 060	378		ER 9S 199 060	443	
2140 x 600	2310 x 820 x 150	■ ■ ■	ER 9R 214 060	393		ER 9S 214 060	470	
2290 x 600	2460 x 820 x 150	■ ■ ■	ER 9R 229 060	408		ER 9S 229 060	513	
600 x 750	770 x 970 x 150	■	ER 9R 060 075	160		ER 9S 060 075	191	
750 x 750	920 x 970 x 150	■	ER 9R 075 075	186		ER 9S 075 075	231	
1220 x 750	1390 x 970 x 150	■ ■	ER 9R 122 075	286		ER 9S 122 075	361	
1370 x 750	1540 x 970 x 150	■ ■	ER 9R 137 075	312		ER 9S 137 075	383	
1520 x 750	1690 x 970 x 150	■ ■	ER 9R 152 075	339		ER 9S 152 075	430	
1840 x 75	2010 x 970 x 150	■ ■ ■	ER 9R 184 075	411		ER 9S 184 075	509	
1990 x 750	2160 x 970 x 150	■ ■ ■	ER 9R 199 075	438		ER 9S 199 075	543	
2140 x 750	2310 x 970 x 150	■ ■ ■	ER 9R 214 075	464		ER 9S 214 075	594	
2290 x 750	2460 x 970 x 150	■ ■ ■	ER 9R 229 075	491		ER 9S 229 075	628	
600 x 900	770 x 1120 x 150	■	ER 9R 060 090	200		ER 9S 060 090	234	
750 x 900	920 x 1120 x 150	■	ER 9R 075 090	217		ER 9S 075 090	217	
900 x 900	1070 x 1120 x 150	■				ER 9S 090 090	303	
1220 x 900	1390 x 1120 x 150	■ ■	ER 9R 122 090	359		ER 9S 122 090	429	
1370 x 900	1540 x 1120 x 150	■ ■	ER 9R 137 090	372		ER 9S 137 090	436	
1520 x 900	1690 x 1120 x 150	■ ■	ER 9R 152 090	397		ER 9S 152 090	456	
1670 x 900	1840 x 1120 x 150	■ ■				ER 9S 167 090	504	
1820 x 900	1990 x 1120 x 150	■ ■				ER 9S 182 090	568	
1840 x 900	2010 x 1120 x 150	■ ■ ■	ER 9R 184 090	518		ER 9S 184 090	606	
1990 x 900	2160 x 1120 x 150	■ ■ ■	ER 9R 199 090	526		ER 9S 199 090	626	
2140 x 900	2310 x 1120 x 150	■ ■ ■	ER 9R 214 090	552		ER 9S 214 090	645	
2290 x 900	2460 x 1120 x 150	■ ■ ■	ER 9R 229 090	584		ER 9S 229 090	665	
2440 x 900	2610 x 1120 x 150	■ ■ ■				ER 9S 244 090	713	
2590 x 900	2760 x 1120 x 150	■ ■ ■				ER 9S 259 090	760	
2740 x 900	2910 x 1120 x 150	■ ■ ■				ER 9S 274 090	808	
500 x 1000	670 x 1220 x 150	■	ER 9R 050 100	197				
1020 x 1000	1190 x 1220 x 150	■ ■	ER 9R 102 100	362				
1540 x 1000	1710 x 1220 x 150	■ ■ ■	ER 9R 154 100	519				
2060 x 1000	2230 x 1220 x 150	■ ■ ■ ■	ER 9R 206 100	676				

*VCHC locking system

F900 solid top cover with removable plug

clear opening axb (mm)	frame overall dimensions length x width x height (mm)	number of covers	reference	weight (kg)	
750 x 750	920 x 970 x 150	■	ER 9T 075 075	238	
1520 x 750	1690 x 970 x 150	■ ■	ER 9T 152 075	444	
2290 x 750	2460 x 970 x 150	■ ■ ■	ER 9T 229 075	651	

*VCHC locking system

Hinged cover with removable plug
(central, clear opening: 380 x 230 mm)

For more information on ERMATIC® duct covers, ERMATIC® multiple units with removable beams: please contact our Sales Team

Network Solutions

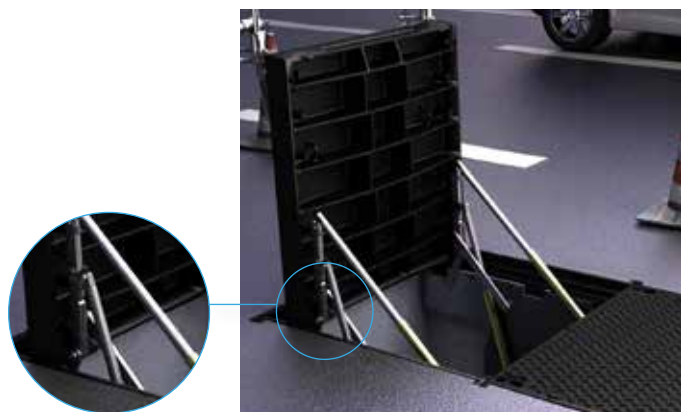
Hinged and assisted opening on the covers

Hinged and assisted opening system on the covers

All solid top Ermatic covers (from Class B125 to class F900) are available with a hinge and lift assist opening system.

Please enquire.

Note: for duct and beam multiple covers, technical assistance is provided on site.



Options

Where appropriate: choice of coil spring or gas struts (standard or stainless steel)

Please consult us for more details.

Operation

Opening of hinged covers

Hinged covers always open in sequence as marked on the covers.



Network Solutions



Telecommunication Solutions



C2	E600
C2	B125
C3	A15
C4	C250

Telecommunications Solutions


E600	features How to specify product	product code	reference	clear opening (mm)	overall (mm)	height (mm)	total (kg)
<div>DT6S RHINO</div> <div>EN124 E600</div> <div></div>	Ductile iron cover and frame E600 to EN124:1994 4 keyways Non rock covers by means of three point suspension Special seating to avoid lateral movement Handling by means of special clamp lifting	536425 536428 510339 522649	CARRIAGEWAY NO.600 CARRIAGEWAY NO.500 DT6S RHINO E600 DT6S107075	1070 x 750 750 x 600 1070 x 650 1070 x 750	1220 x 950 900 x 800 1220 x 850 1220 x 950	150 150 125 150	314 196 217 314
<div>RHINO RING BEAM</div> <div>EN124 E600</div> <div></div>	Cover specification- as above Reinforced concrete ring beam Four frame sling points Frame pre installed and bolted to ring beam Monoblock concrete beam adds strength to overall chamber structure Lifting points for ring beam for ease of installation Delivered assembled to site Steel reinforcements to BS4449	7B0720 7B0725	600 600A	1054 x 734 1054 x 734	1632 x 1312 2132 x 1312	330 330	1064 1414
B125							
<div>JB1</div> <div>EN124 B125</div> <div></div>	Ductile iron cover B125 to EN124:1994 Galvanised steel frame Sealed keyways Single cover Locking arrangement (patented design) Options: Can be supplied unlocked	710085	JB1 BLANK	385 x 260	590 x 445	52	16
<div>JB2</div> <div>EN124 B125</div> <div></div>	Ductile iron cover B125 to EN124:1994 Galvanised steel frame Sealed keyways Single cover Locking arrangement (patented design) Options: Can be supplied unlocked	710093	JB2 BLANK	730 x 260	920 x 455	52	27

Please note: Overall dimensions of the JB covers include the grouting bars.

Telecommunications Solutions

	features How to specify product	product code	reference	clear opening (mm)	overall (mm)	height (mm)	total (kg)
JB4 EN124 B125  	Ductile iron cover B125 to EN124:1994 Galvanised steel frame Sealed keyways Locking arrangement (patented design) Options: Also available in multiple units Wide selection of badging available	710908	JB4 BLANK	915 x 445	1110 x 640	52	59
		710909	JB4A BLANK	975 x 915	1170 x 1110	52	116
		710910	JB4B BLANK	1500 x 915	1710 x 1110	56	190
		710911	JB4C BLANK	2030 x 915	2330 x 1110	56	253
JB5 EN124 B125 	Ductile iron cover B125 to EN124:1994 Galvanised steel frame Sealed keyways Single cover Locking arrangement (patented design) Options: Wide selection of badging available	710097	JB5 BLANK	615 x 615	705 x 705	52	44
JB6 EN124 B125 	Ductile iron cover B125 to EN124:1994 Galvanised steel frame Sealed keyways Locking arrangement (patented design) Options: Wide selection of badging available	710098	JB6 BLANK	1310 x 615	1401 x 705	52	97
A15							
JB23 A15 	Ductile iron cover A15 to EN124:1994 HDPE Box Sealed keyway Cover sits into box. No frame required	710531	JB23	225 x 460	280 x 490 x 500	35	18

Telecommunications Solutions

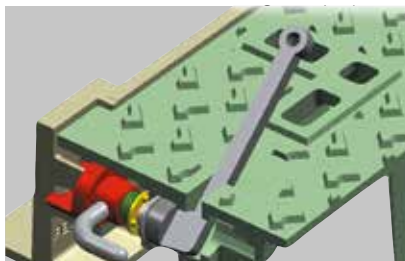
C250	features How to specify product	product code	reference	clear opening (mm)	overall dimension (mm)	height (mm)	weight (kg)
TI MODULO C250 	Ductile iron access chamber and cover with TI turnbuckle coded key	520657	TI MODULO	376 x 376	480 x 480	268	59

Product locking and customisation

Throughout Europe, EJ provides major telecom operators with customised products and specific locking systems. Numerous utility providers have engaged with us to design bespoke product solutions. Please contact our Sales Team for further information on customised products.



Horizontal locking system (Patented) - ref VOR



Customised
locking key



Undetectable mechanism
from the outside and
protected from the weather



Auto- cleaning

Waterworks Covers

- D2** Introduction to the standard IS261
- D3** Grade A Fire Hydrant, Meter, Air Valve
- D3** Grade B Fire Hydrant, Meter, Air Valve
- D3** Grade B Stopcock Uisce
- D4** D400 Fire Hydrant, Sluice Valve, Air Valve, Water Meter
- D4** B125 Fire Hydrant, Sluice Valve, Air Valve, Water Meter
- D4** B125 Stop Cock
- D4** B125 SV
Grade A SV BS5834
- D5** Water Meter Covers

Introduction to IS261

The standard IS261 is applicable only to Waterworks Road Furniture in the Republic of Ireland today. It governs the following products:

- Cast iron surface boxes, frames and covers for Hydrant, Meter and Air Valves.
- Cast iron surface boxes, frames and covers for Sluice Valves.
- Cast iron surface boxes, frames and covers for Stopcocks.

It is similar to the European Standard EN124 however some differences do exist:

- Difference in loading requirements of the products
- Certification of Compliance

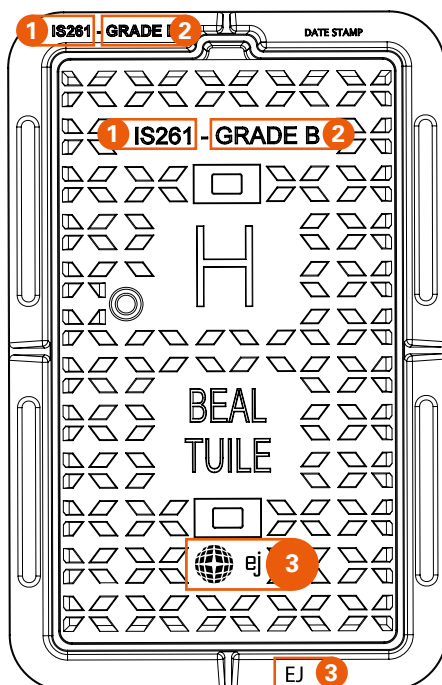
Certification of Compliance

The Standard IS261 states, "The purchaser shall, on request, be supplied with a certificate in respect of each delivery certifying that the articles comply with the requirements of this specification".

Product Markings

All covers and frames shall have clearly cast thereon:

- 1 The number of this Irish Standard
- 2 The appropriate grade
- 3 The manufacturers name or mark

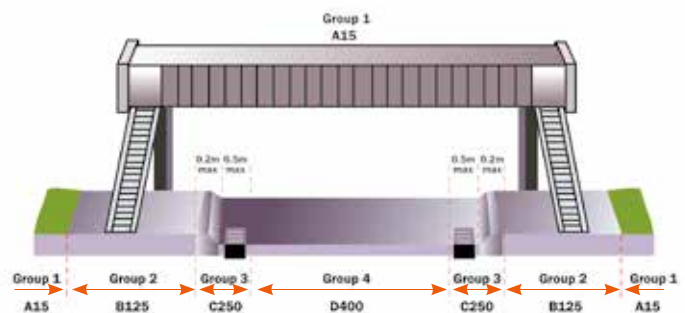


Loading Classification

Grade A Capable of bearing wheel loads up to 11.50 tonnes, for use in carriageway and other areas subject to heavy loading. These covers and frames should incorporate a permanent non-rock design feature such as triangular point suspension or machined faces.

Grade B Cover and frame capable of bearing wheel loads up to 8.00 tonnes, for use in areas to which vehicles would only have occasional access (e.g. pedestrian precincts).

Grade C Cover and frames for use in areas inaccessible to motor vehicles.



NOTE:

As per the "Recommendations for site developments works for Housing Areas" issued by the Department of Environment all waterworks covers and frames shall comply with the standard IS261.



Waterworks Covers

IS261	features How to specify product	product code	reference	clear opening (mm)	overall dimensions (mm)	height (mm)	weight (kg)
CARRIAGEWAY FH, AV, M IS261 GRADE A 	Ductile iron cover and frame IS261 Grade A 445 x 275mm clear opening 100 mm deep frame Non rock by means of three point suspension Open keyways	710305	CARRIAGEWAY BEAL TUILE	445 x 275	645 x 480	100	42
		710325	CARRIAGEWAY METER	445 x 275	645 x 480	100	42
		710345	CARRIAGEWAY AIR VALVE	445 x 275	645 x 480	100	42
FOOTWAY FH, M, AV IS261 GRADE B 	Ductile iron cover and frame IS261 Grade B 444 x 250mm clear opening 67 mm deep frame Single drop in cover Open keyways Options: Security chain available Available in yellow or blue Additional mass per unit area available as per customer requirements	710302	FOOTWAY BEAL TUILE	444 x 250	605 x 390	67	29
		710322	FOOTWAY METER	444 x 250	605 x 390	67	29
		710342	FOOTWAY AV	444 x 250	605 x 390	67	29
STOPCOCK UISCE IS261 GRADE B 	Hinged ductile iron cover and frame IS261 Grade B 120 x 125mm clear opening 50 mm deep frame Precision drilled holes and spring hinge pins in accordance with BS EN 28752 Open keyways	710372	STOPCOCK UISCE	120 x 125	190 x 200	50	4

Waterworks Covers

EN124	features How to specify product	product code	reference	clear opening (mm)	overall dimensions (mm)	height (mm)	weight (kg)
CHEETAH FH, SV, AV, M EN124 D400 	Ductile iron cover and frame D400 to EN124 :1994 445 x 280mm clear opening 100 mm deep frame Non rock by means of three point suspension Open keyways Options: Unbadged	710310	CHEETAH FH	445 x 280	645 x 480	100	43
		710351	CHEETAH SV	445 x 280	645 x 480	100	43
		710350	CHEETAH AV	445 x 280	645 x 480	100	43
		710330	CHEETAH M	445 x 280	645 x 480	100	43
LEOPARD FH, SV, AV, M EN124 B125 	Ductile iron cover and frame B125 to EN124: 1994 444 x 250mm clear opening 67 mm deep frame Single drop in cover Open keyways Options: Security chain available Available in yellow or blue	710300	LEOPARD FH	444 x 250	605 x 390	67	21
		710391	LEOPARD SV	444 x 250	605 x 390	67	21
		710340	LEOPARD AV	444 x 250	605 x 390	67	21
		710320	LEOPARD M	444 x 250	605 x 390	67	21
STOPCOCK EN124 B125 	Hinged ductile iron cover and frame B125 to EN124:1994 120 x 125mm clear opening 50 mm deep frame Precision drilled holes and spring hinge pins in accordance with BS EN 28752 Open keyways	710371	STOPCOCK WATER	120 x 125	190 x 200	50	4
OTTER SV EN124 B125 	Hinged ductile iron cover and frame B125 to EN124:1994 120 x 125mm clear opening 100 mm deep frame Precision drilled holes and spring hinge pins in accordance with BS EN 28752 Open keyways	710360	OTTER SV	120 x 125	190 x 200	100	7
FJ1730 EN124 B125 	Ductile iron cover and frame B125 to EN124:1994 725 x 455mm clear opening 50 mm deep frame Sealed keyways Options: Locked in galvanised steel frame HDPE box available	710441	FJ1730	725 x 455	790 x 520	50	45
BS5834 SV							
SV Grade A 	Material – ductile iron cover and frame Double triangular covers for non rock performance Coupling of the covers by bolt Open keyholes	534156	1616 SV	163 x 163	247 x 247	100	8

Waterworks Covers

Water Meters	features How to specify product	product code	reference	clear opening (mm)	overall dimensions (mm)	height (mm)	weight (kg)
BS5834 WATERMETER Grade B 	Ductile iron cover and frame Badged W, BS5834 , Grade B Locked with 2 x M16 stainless steel nuts and bolts Locking bolt caps (2no) 164 kN design load Capable of bearing a wheel load up to 16 tonnes Chamber sealed by sealing ring in cover Concrete collar surround available	713060	WATER METER BS5834	Ø180	300 x 300	76	15
WATERMETER Grade A/Grade B Loading 	Ductile iron cover and frame Badged Water Meter Available in a Grade A or Grade B loading Concrete collar surround available Independently verified as suitable for AMR Option: Independently verified as suitable for AMR Locked with a M16 Stainless Steel nut and bolt	713030 713031	WATER METER UNLOCKED WATERMETER LOCKED	Ø185 Ø148	250 x 250 250 x 250	106 100	10 10
BOUNDARY BOX 	Telescopic or Fixed Height Available in fixed height 600mm or 300mm Suits various pipe sizes/types 3/4" screwed connection or push fit for 1/2" heavy gauge 1/4" turn ball valve stopcock - no wear or tear 1/4" turn ball valve stopcock - definite action on/off 1/4" turn ball valve stopcock - no decay over time Fittings pressure tested Frost Pad No flow, trickle flow & full flow caps Option for fitting water filter in meter box Accepts all G 1 1/2" concentric water meters Larger capacity meter manifold available	7B0335 7B0336	TELESCOPIC BOX FIXED HEIGHT BOX				
RBA EN124 C250 	Hinged ductile iron cover and frame Single seal Visible square frame	520037	RBA 360	Ø180	355 x 355	190	24

Our Water Meter Box consists of a ductile iron cover and frame seated on a boundary box complete with WRAS approved plastic housing and plastic or gun metal fittings.

In March 2009 the Department of the Environment, Heritage and Local Government issued a Circular Letter

BC 6/2009 which clarifies the correct specification for covers/frames for water meter boxes. The relevant standards are BS5834 and IS261



Drainage Gratings

- E2** Gully Gratings
F900/E600
- E3** D400
- E6** Trapped Gullys
- E6** Gully Gratings
C250 Flat
- E7** C250 Dished
- E7** Kerbside Entry Gratings
- E8** Linear Gratings
F900
D400
C250
125kN
- E9** Accessories






Drainage Gratings

Gully Gratings	features How to specify product	product code	reference	clear opening (mm)	overall dimensions (mm)	height (mm)	weight (kg)	waterway area (cm ²)
F900								
SOLO FGC EN124 F900 	Hinged ductile iron grating and frame F900 to EN124:1994 Square 100mm deep frame Non rock by means of polychloro- prene cushioning insert glued to the cover Hinged grating allows for easy opening Grating is safety blocked at 90° and rests at 115° Third party certified with AFNOR NF mark. Options: Selflevel frame, circular frame	528456	SOLO SFG	Ø600	Ø850	100	103	1020
		528457	SOLO SFGC	Ø600	850 x 850	100	113	1010
		528473	SOLO SFG VOTC	Ø600	850 x 850	100	113	1010
		514827	OTC KEY					
GF5050AVT12 SELF EN124 F900 	Hinged ductile iron grating and frame F900 to EN124:1994 Square Selflevel 245mm deep frame Non rock covers by means of three point suspension Locked with stainless steel HM12 turnbuckle Hinged grating allows for easy opening Third party certified with AFNOR NF mark	532120	GF5050AVT12 SELF	342 x 342	645 x 645	245	96	740
ER9G100045 EN124 F900 	Ductile iron grating and frame F900 to EN124:1994 Rectangular 125mm deep frame Non rock covers by means of machi- ned seatings	513157	ER9G100045	450 x 900	900 x 550	125	171	2038
E600								
GE2450EH CALDER EN124 E600 	Captive hinged ductile iron grating and frame E600 to EN124:1994 Square 100mm deep frame Non rock Option: reversible hinge to suit traf- fic direction	512706	GE2450EH CALDER	396 x 348	592 x 530	100	54	925





Drainage Gratings

Gully Gratings	features How to specify product	product code	reference	clear opening (mm)	overall dimensions (mm)	height (mm)	weight (kg)	waterway area (cm2)
D400								
BRIO GRATING EN124 D400 	Hinged ductile iron grating and frame, D400 to EN124:1994, 100mm deep frame, Non rock by means of polyethylene cushioning insert fixed to the frame. 5 centering guides to minimise cover lateral movement, 1 integrated and retractable handle for ease of handling, Third party certified with AFNOR NF mark. Options: square frame, locking (OTC)	515534 515529 515532	BRIO GR BRIO GC BRIO SGC	Ø600	Ø850	100	63	1020
				Ø600	850 x 850	100	71	1020
				Ø600	850 x 850	100	71	1020
CA 10 110 DVLP EN124 D400 	Ductile iron grating and frame, D400 to EN124:1994, 1000 x1000mm clear opening, 100mm deep frame, Non rock by means of bolting down the gratings with 4 stainless steel CHC10 bolts, Third party certified with AFNOR NF mark.	532104	CA 10110 DVLP	1000 x 1000	1270 x 1150	100	231	5030
TAMAR - GD EN124 D400 	Ductile iron grating and frame, D400 to EN124:1994, Four sided frame, Non rock by means of three point suspension, Third party certified by BSI KM. Options: locking	512428 512593 524097 520459	TAMAR 100 TAMAR 150 GD1 6060 MEDWAY GD5050	600 x 600	758 x 758	100	99	2000
				600 x 600	758 x 758	150	118	2000
				600 x 600	748 x 748	100	82	1470
				450 x450	650 x 650	100	60	1000
GD6060A T3 EN124 D400 	Captive, hinged ductile iron grating and frame, D400 to EN124:1994, 600X600mm over grate dimension, 100mm deep, four sided frame, Non rock covers by means of wedged seating, Selflocking by means of spring bars, Hinged grating allows for easy opening Third party certified with AFNOR NF mark.	532252	GD6060A T3	600 X 600	720 X 720	100	67	1600
RAPIER 100 EN124 D400 	Ductile iron grating and frame, D400 to EN124:1994, Three sided frame, Non rock by means of three point suspension, Third party certified by BSI KM.	710134	RAPIER 100	430 x 390	545 x 525	100	42	1060

Drainage Gratings

Gully Gratings	features How to specify product	product code	reference	clear opening (mm)	overall dimensions (mm)	height (mm)	weight (kg)	waterway area (cm ²)
SELFLEVEL GRATING EN124 D400 	Ductile iron grating and frame, D400 to EN124:1994, 235mm deep, four sided frame, Non rock by means of three point suspension, Third party certified by AFNOR NF.	522789	GD 5050 SELFLEVEL	Ø 340	645 x 606	235	71	1000
HUMBER EN124 D400 	Ductile iron grating and frame, D400 to EN124:1994, Three sided frame, Non rock by means of three point suspension, Third party certified by BSI KM. Options: locking	512429 532947	HUMBER 100 HUMBER 150	372 x 372 372 x 372	600 x 530 600 x 530	100 150	43 52	1012 1012
BARCINO EN124 D400 	Hinged ductile iron grating and frame, D400 to EN24:1994, 100mm deep frame, Non rock covers by means of wedged seating, Third party certified by AENOR N mark. Options: gratings can be rotated horizontally at 90°, Can be assembled to form a channel	526279	BARCINO	910 x 408	1030 x 528	102	115	2012
TRUCK G EN124 D400 	Ductile iron grating and frame, D400 to EN124:1994, 100mm deep frame, Non rock by means of polyethylene cushioning insert fixed to the frame, Third party certified with AFNOR NF mark. Options: custom badging available	526095 526094 526732	TRUCK 400 G TRUCK 500 G TRUCK 600 G	400 X 400 500 X 500 600 x 600	540 X 540 640 X 640 740 X 740	102 102 102	41 55 78	615 990 1440
BISON 100 EN124 D400 	End hinged ductile iron grating and frame, D400 to EN124:1994, 100mm deep, three sided frame, Non rock, Third party certified by BSI KM. Options: locking, reversible hinge to suit traffic direction	710155 710157	BISON 100 Locked BISON 100 LKD	495 x 345 495 x 345	645 x 440 645 x 440	100 100	43 43	1140 1140

Drainage Gratings

Gully Gratings	features How to specify product	product code	reference	clear opening (mm)	overall dimensions (mm)	height (mm)	weight (kg)	waterway area (cm2)
BUFFALO 100 EN124 D400 	End hinged ductile iron grating and frame, D400 to EN124:1994, 100mm deep, three sided frame, Non rock, Third party certified by BSI KM. Options: locking, reversible hinge to suit traffic direction	710190	BUFFALO 100	430 x 375	525 x 525	100	35	1140
		710191	Locked BUFFALO 100 LKD	430 x 375	525 x 525	100	35	1140
JAGUAR 100 EN124 D400 	Kerb hinged ductile iron grating and frame, D400 to EN124:1994, 100mm deep, three sided frame, Non rock, Third party certified by BSI KM. Options: locking	710159	JAGUAR 100	430 x 370	525 x 520	100	37	1070
		710160	Locked JAGUAR 100 LKD	430 x 370	525 x 520	100	37	1070
LION 100 EN124 D400 	End hinged ductile iron grating and frame, D400 to EN124:1994, 100mm deep, three sided frame, Non rock, Third party certified by BSI KM. Options: locking, reversible hinge to suit traffic direction	710124	LION 100	360 x 310	510 x 400	100	31	745
		710125	Locked LION 100 LKD	360 x 310	510 x 400	100	31	745
AQUERA 400kN 	Ductile iron grating and galvanised steel frame, 400kN, 140mm deep frame, Non rock covers by means of three point suspension, Pedestrianised slots Options: can be assembled to form a channel or a beam multiple unit	61760073	FC4G062047 VOTC LR	620 x 476	780 x 736	430		1470
		532781	FC4G062047 VOTC LR	1854 x 476	2014 x 736	430		4410
		61760072	FC4G062047 VOTC LR	1237 x 1106	1397 x 1366	430		2940
		61760070	FC4G062047 VOTC LR	1854 x 1736	2014 x 1996	430		4410






Drainage Gratings

Trapped Gully Gratings	features How to specify product	product code	reference	clear opening (mm)	overall dimensions (mm)	height (mm)	weight (kg)	waterway area (cm ²)
HIPPO DUAL EN124 D400 	Integrated kerb gully with captive hinged grating, Ductile iron grating and frame, D400 to EN124:1994, Dual outlet gully adapts easily To suit bottom or back outlet Outlet suitable for 6 inch plastic pipe fitting Capacity of 40 litres Grating reversible, end hinged and flat Integral trap minimises back odours Unique design for stable installation Hinged cleaning eye cover for rodding	7C020	HIPPO DUAL	410 x 390	620 x 410	418	109	540
		7C021		410 x 390	620 x 410	418	109	540
AV 450/AV 660 EN124 D400 	Integrated kerb gully with captive hinged grating, Ductile iron grating and frame, D400 to EN124:1994, 450 or 660mm deep frame, Non rock covers by means of three point suspension, Dual function: siphon and settling of solids. Front connecting drain port for DN160 pipes, Third party certified with AENOR NF mark.	528886 528888	AV450 SH160 AV660 SH160	730 x 220 730 X 220	750 x 290 750 X 290	450 660	114 136	680 680
Flat Gratings C250								
LION EN124 C250 	End hinged ductile iron grating and frame, C250 to EN124:1994, 75mm deep, Third party certified by BSI KM. Options: locking	710112	LION 75	365 x 310	515 x 400	75	23	640
		710117	Stainless steel LION 75 LKD	365 x 310	515 x 400	75	23	635
		710118	M16 bolt LION 75 LKD	365 x 310	515 x 400	75	23	635
LION STAR LKD EN124 C250 	End hinged ductile iron grating and frame, C250 to EN124:1994, 75mm deep, Third party certified by BSI KM.	710119	Pedestrianised LION STAR LKD	365 x 310	515 x 400	75	24	606

Drainage Gratings

Dished gratings C250	features How to specify product	product code	reference	clear opening (mm)	overall dimensions (mm)	height (mm)	weight (kg)	waterway area (cm2)
PUMA Q EN124 C250 	Kerb side hinged ductile iron grating and frame, C250 to EN124:1994, 100 mm deep, Four sided frame, Dished grating Third party certified by BSI KM.	710144	PUMA Q	390 x 316	544 x 470	100	26	745
		710145	PUMA Q LKD	390 x 316	544 x 470	100	26	740
		710146	PUMA Q LKD	390 x 316	544 x 470	100	26	740
BOBCAT LOCKED EN124 C250 	End hinged ductile iron grating and frame, C250 to EN124:1994, 100 mm deep, Four sided frame, Dished grating Third party certified by BSI KM.	710154	BOBCAT LKD	390 x 315	590 x 520	100	29	818
CV RANGE EN124 C250 	Ductile iron grating and frame C250 to EN124:1994, Dished channel grating with special design of bars to provide maximum water drainage Self locking on the frame by means of a spring bar Third party certified with AFNOR NF	538325	C 400 V LR	350 x 350	450 x 450	60	22	480
		538326	C 500 V LR	450 x 450	550 x 550	65	33	678
		538327	C 600 V LR	550 x 550	650 x 650	70	49	1105
C250 Kerbside entry gratings								
SAHARA KERBSIDE EN124 B125/C250 	Gully captive hinged cover ductile iron cover and frame, C250 to EN124:1994, 2 BS closed keyways, Hinged grating allows for easy opening Third party certified by BSI KM.	522912	SAHARA	480 x 480	512 x 578	220	66	960
PR3 EN124 C250 	Kerb gully ductile iron cover and frame, C250 to EN124:1994, Third party certified with AFNOR NF Options: custom badging available	502512	PR3 - GPR30	Ø610	830 x 800	200	70	520
TEMPOPLUS LR EN124 C250 	Kerb gully with hinged grating and ductile iron cover, grating and frame, C250 to EN124:1994, Selflocking by means of spring bars, The cover and grating open easily with the hinges, Rest at 100° and are removable from the vertical position, Pedestrianised gratings slots, Third party certified with AFNOR NF Options: custom badging available	538353	TEMPO PLUS DROIT LR	680 x 420	800 x 659	70-180	85	475
		538333	TEMPO PLUS A LR	680 x 500	800 x 659	60-80	80	475
		538334	TEMPO PLUS T LR	680 x 500	800 x 659	100-180	90	475

Drainage Gratings

Linear Gratings F900	features How to specify product	product code	reference	clear opening (mm)	overall dimensions (mm)	height (mm)	weight (kg)	waterway area (cm2)
<div>CA 1040 FVLV</div> <div>CA 1055 FLV</div> <div>EN124 F900</div> <div></div>	Linear trench ductile iron grating and frame, F900 to EN124:1994, 100mm deep frame with locating lugs, Non rock, Selflocking by means of spring bars and stainless steel bolts, Third party certified with AFNOR NF Options: end bars (pair), frame levelling kit	532105 528251	CA 1040 FVLV CA 1055 FLV	1000 x 305 1000 x 450	1000 X 400 1000 X 555	100 100	97 128	1860 2545
<div>CA 1070 FLV</div> <div>CA 1085 FVL</div> <div>EN124 F900</div> <div></div>	Linear trench ductile iron grating and frame, F900 to EN124:1994, 100mm deep frame with locating lugs, Non rock, Selflocking by means of spring bars and stainless steel bolts, Third party certified with AFNOR NF Options: end bars (pair), frame levelling kit	522289 538074	CA1070 FLV CA1085 FVL	1000 x 610 1000 x 760	1000 x 700 1000 x 1028	100 100	180 215	2434 3000
D400								
<div>CA 10.. DVL</div> <div>EN124 D400</div> <div></div>	Linear trench ductile iron grating and frame, D400 to EN124:1994, 100mm deep frame with locating lugs, Non rock, Selflocking by means of spring bars and stainless steel bolts, Third party certified with AFNOR NF Options: end bars (pair), frame levelling kit	52282301 522824 522825 522826 01 528919	CA1030DVL CA1040DVL CA1050DVL CA1060DVL CA 05110 DVL	1000 X 210 1000 X 310 1000 X 410 1000 X 510 500 x 1000	1000 X 300 1000 X 400 1000 X 500 1000 X 600 650 x 1270	100 100 100 100 103	56 67 84 100 100	1023 1563 1871 2443 2514
C250								
<div>CA 75..</div> <div>EN124 C250</div> <div></div>	Linear trench ductile iron grating, C250 to EN124:1994, Channel grating to be placed on 30x30x3 steel angles or ductile iron frame, Third party certified with AFNOR NF Options: C7 frame	500575 500576 500577 500578 500580 500586 500587 500588	CA752 CA752B CA753 CA753B CA754 CA755 CA756 CA757	750 X 140 750 X 210 750 X 240 750 X 310 750 X 340 750 X 440 750 X 540 750 X 640	750 X 200 750 X 250 750 X 300 750 X 350 750 X 400 750 X 500 750 X 600 750 X 700	27 27 27 27 27 27 27 27	14 15 20 21 25 36 46 56	900 760 900 1100 1300 1590 1900 2100
<div>CA750 LR</div> <div>EN124 C250</div> <div></div>	Linear trench ductile iron grating, C250 to EN124:1994, 750x300mm over grate dimension, Channel grating to be placed on 30x30x3mm steel angles or ductile iron frame, Pedestrianised gratings slots, Third party certified with AFNOR NF Options: C7 frame	520538 538331 01 538332 01	CA 753 LR CA 754 LR CA 755 LR	750 X 240 750 X 340 750 X 440	750 X 300 750 X 400 750 X 500	27 27 27	24 27 38	720 924 1129

Drainage Gratings

	features How to specify product	product code	reference	clear opening (mm)	overall dimensions (mm)	height (mm)	weight (kg)	waterway area (cm2)
125 kN								
<div>LE 500</div> <div>125kN</div> <div></div>	Material-ductile iron with galvanised frame Channel grating (500 mm lengths) may be placed on 30 x 30 x 3 mm steel angle iron frames Diamond shaped slots on grating suitable for cyclists	502233 502234 502235	LE 502 LE 502 B LE 503	500 X 140 500 X 190 500 X 260	500 X 200 500 X 250 500 X 300	27 27 27	9 9 12	420 580 700
Accessories								
<div>C 750</div> <div>C250</div> <div></div>	Steel frame, to suit CA75x grating series, 37mm deep frame.	501051 501052 501054 501055 501058 501059 501060 02 501064	C752 C752B C753 C753B C754 C755 C756 C757	710 x 160 710 x 210 710 x 260 710 x 310 710 x 360 710 x 460 710 x 560 710 x 660	790 x 230 790 x 280 790 x 330 790 x 380 790 x 430 790 x 530 790 x 630 790 x 730	37 37 37 37 37 37 37 37	9 9 10 10 11 11 13 13	
<div>FRAME BARS</div> <div>C250</div> <div></div>	Ductile iron rails which do not bend to ensure a level finish	510957 510958 502244	C10001 FRAMEBAR G. 1M C10001 FRAMEBAR D. 1M LG075 FRAMEBAR				7 7 3	
<div>ANGLE IRON</div> <div>C250</div> <div></div>	2 m long steel angle iron with anchor bolts		ANGLE IRON 30 X 30 X 3 MM				3	
<div>END PLATES</div> <div></div>	Pair of cast iron end plates for even finish Protects the ends of the gratings	528572 528706 01 528573 528574 528575 528920	PEDF3003.04 PEDF4003.04 PEDF5003.04 PEDF5503.04 PEDF6003.04 PEDF11003.04	CA1030 CA1040 CA1050 CA1055 CA1060 CA05110	10 12 15 16 18 26			
<div>LUGS</div> <div>For CA750 GRATING</div> <div></div>	Lugs in galvanised steel to align the CA 750 range of grating		CLAVET 1 CLAVET 2 CLAVET 3 CLAVET CALR	CA752/753/753B/755 CA752B/754 CA756/757 CA750 LR	0,2 0,2 0,2 0,2			

Drawings, photographs and weighs are given as an indication only and without any contractual value.
Our policy is one of continuous product improvement, we reserve the right to modify product specifications without prior notice.

Manufacturing sites of welded galvanised steel products, Ardennes, France and Birr, Ireland.



At EJ our advanced product design capabilities enable us to bring further innovations to the market place. Our range of Fabricated steel products are available in drop-in and hinged formats and include provision for spring and gas assistance for easier handling. The covers also feature options to provide fall protection and a range of locking variants. Available in single, double, triple and multiple leaf variants they are designed to meet the load conditions found in utility environments today. You can choose between galvanised steel, stainless steel or aluminium finishes.

We are making good things happen



Fabricated Steel Products

F2 Flush Fit Covers and Frames

F4 Upstand Covers and Frames

F5 Safety Grids



Drawings, photographs and weights are given as an indication only without any contractual value. Our policy is one of continuous product improvement, we reserve the right to modify product specifications without prior notice.

Modular, hinged or drop-in covers and frames in galvanised steel

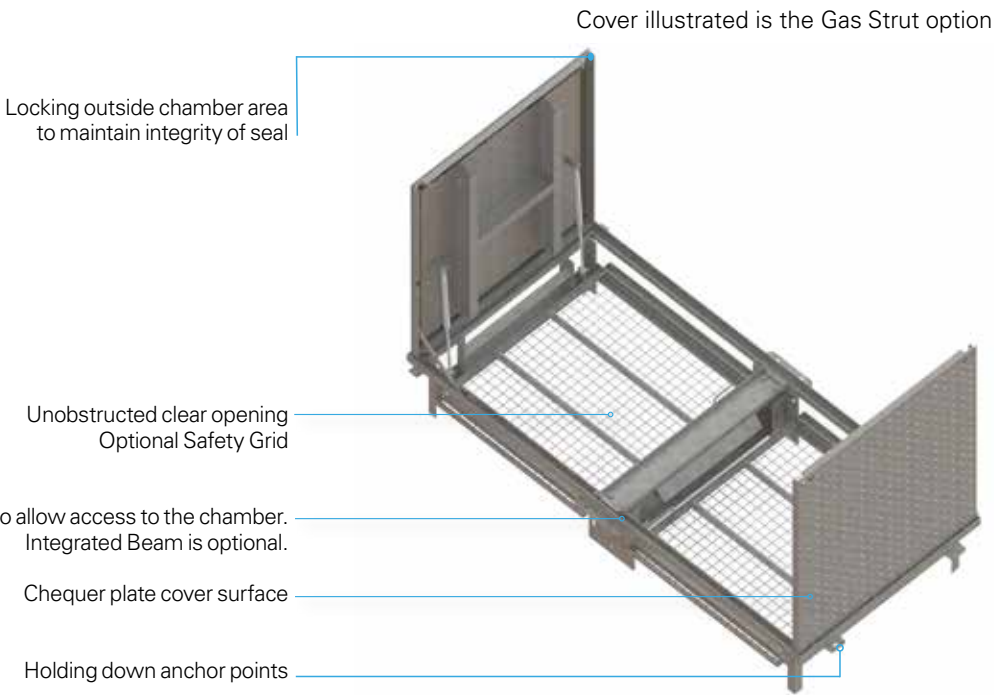
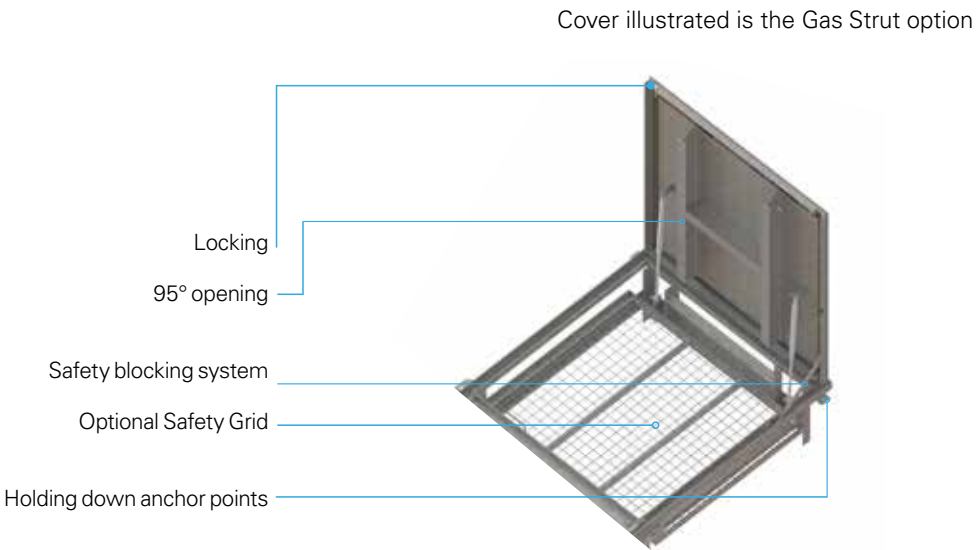
FLUSH FIT

AREA OF INSTALLATION

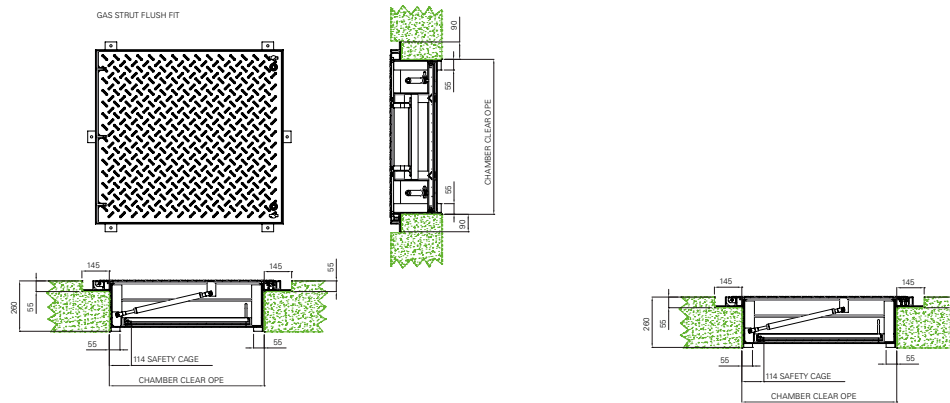
- FF1S 15kN:**
Footways, pedestrian and cycle areas.
- FF2S 125kN:**
Footways, pedestrian areas, car parks.
- FF3S 250kN:**
Slow moving, occasionally trafficked areas, parking areas.

Assist lift options:

- Gas Strut
- Torsion Spring
- (lifting effort less than 25kg)



How to specify product									
For example, to order a flush fit, 1200 x 600 mm clear opening, 125kN loading with a seal and safety grid use reference FF2S 120060 J GS									
range	loading	surface finish	clear opening (A)	clear opening (B)	hinged	Padlock	locking type	seal	safety grid
FF	1	S	120	060	A	V	VOTC	J	GS...
	15kN = 1	solid top =S	1200	060	hinged = A	Padlock = V Locking devices options	VAF	Seal = J	Safety Grid See E12



FF dimensions without beam

Dimensions of openings (mm)		Width of opening B (mm)						
		0450	0600			FF1S FF2S FF3S	FF1S FF2S	FF3S
Length of opening A (mm) Direction of the joint and beam	0600			0675				
	0675			0750				
	0900				0900			
	1000					1000		
	1200							1200
	1400							
	1500							
	1600							
	1700							
	1800							
	2000							
	2200							
	2400							
	2500							
	2600							
	2800							
	3000							

Please consult our Sales Team for more options



FF dimensions with beam

Dimensions of openings (mm)		Width of opening B (mm)						
		1200					FF1S FF2S	FF1S
Length of opening A (mm) Direction of the joint and beam	1200	1400						
	1400		1500					
	1500			1700				
	1600				1800			
	1700					2000	2400	
	1800							
	1900							
	2000							
	2200							
	2400							
	2500							
	2600							
	2800							
	3000							

Options

Locking

M16 bolt

Option:

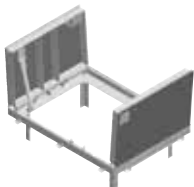
Stainless steel bolt

Badging

(loading class, company name etc) stamped on the cover and frame

Opening of the covers

- opposite side opening
- in line opening



Seal - reference J

(fixed to the underside of the cover to limit odour escape)



Specific Safety Grids

for various access strategies

Modular, hinged covers and frames in galvanised steel

UPSTAND

AREA OF INSTALLATION

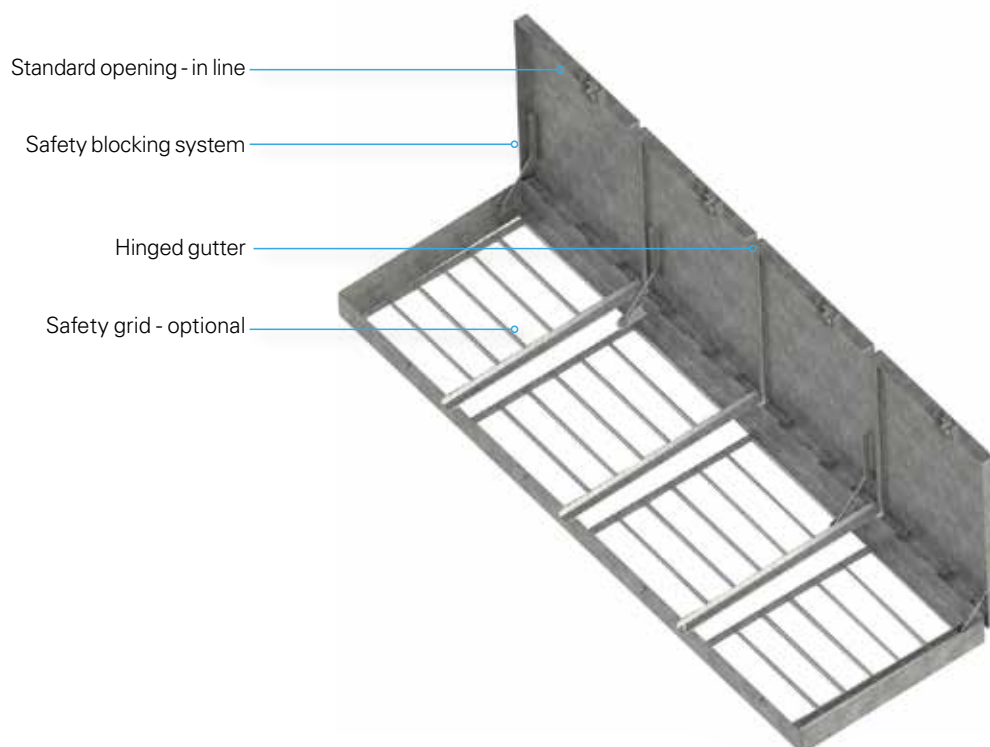
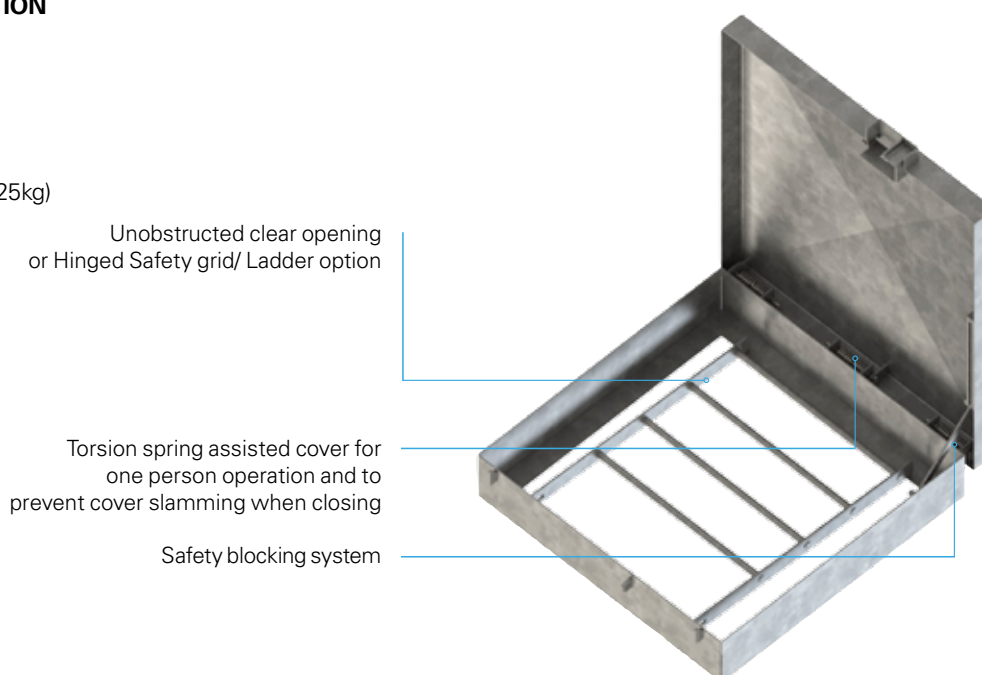
Non trafficked areas

Assist lift options:

Gas Strut

Torsion Spring

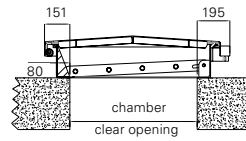
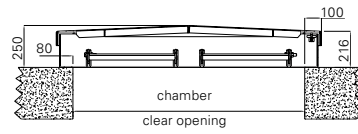
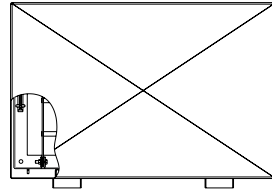
(lifting effort less than 25kg)



How to specify product

For example, to order an upstand unit, 1500 x 500 mm clear opening, 15kN loading with a seal and safety grid use reference UP1S 150 050 J GS as a reference

range	loading	surface finish	clear opening (A)	clear opening (B)	hinged	Padlock	locking type	seal	safety grid
UP	1	S	150	050	A	V	VOTC	J	GS...
	15kN = 1	solid top =S	1500	1500	hinged = A	Padlock = V Locking devices options	VAF	Seal = J	Safety Grid See E12



Upstand dimensions without beam

Dimensions of openings (mm)	Width of opening B (mm)											
	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200		
0300												
0400												
0500												
0600												
0700												
0800												
0900												
1000												
1100												
1200												
1300												
1400												
1500												
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2800												
2900												
3000												
3100												
3200												
3300												
3400												
3500												
3600												

Upstand dimensions with beam

Dimensions of openings (mm)	Width of opening B (mm)				
	1500	1750	2000	2250	2500
1500					
1750					
2000					
2250					
2500					
2750					
3000					
3250					
3500					
3750					
4000					
4250					
4500					
4750					
5000					
5250					
5500					
5750					
6000					

Please consult our Sales Team for more options

	1 cover
	2 covers
	3 covers

Options

Locking



Hasp and staple system which accepts a user padlock.

Seal - reference J

(fixed to the underside of the cover to limit odour escape)

Opening of the covers

- opposite side opening
- in line opening



Specific Safety Grids

for various access strategies

Seal on padlock housing

(to prevent odour escape and water/ice accumulation)

Galvanised steel safety grids

Padlocked, removable, safety railings

Load bearing

- 150 kg.....ref. GP15
- 300 kg.....ref. GS30

Grid / Rung type

- Welded mesh 50 x 50 mm.....ref. M05
- Rungs/Slats 10 cm.....ref. J
- Pedestrian.....ref. W
- Individual rungs

Other grid options

- Monobloc
- In 2 parts facing each other to allow for the movement of equipment.....ref. 2

Opening

- standard
- blocking at 90°

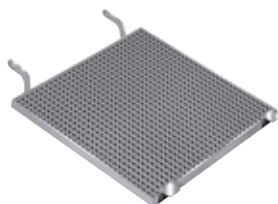
Installation

- On support legs
- Included in a cover assembly: please consult our Sales team

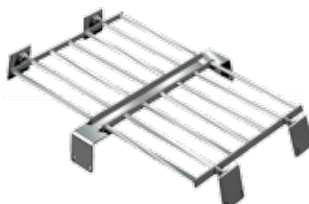
It is important to check the underground facilities when specifying the safety grid to ensure that the grid can be correctly installed.



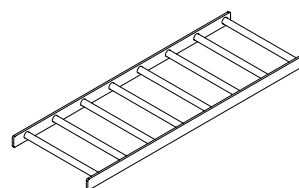
Grid bars safety blocking



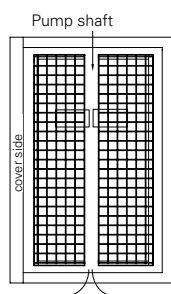
Walk on grid



Lockable grid can be installed below the steel cover



Spacing on the grid bars to allow for equipment to pass through



Two part grating for pump removal



Individual hinged rung with automatic closure



Safety railings
Please consult us



Grate with secondary hatch
Allows access to an equipment

Load bearing		Structure			Safety blocking at 90°		Number of parts		Clear Opening			Secondary access		
150 kg	300 Kg	Welded mesh	Rungs	Walk on	No	Yes			Dimensions O x O			Opening access P x P'		
GP15	GS30	M05	J	W	NB	B	1	2	O	xxx mm	xxx mm	P	xxx mm	xxx mm

Street Furniture



G2 Tree Grilles

G3 Bollards

G4 Recessed & Solid Top Block Paving Covers

G5 Tactile Paving Covers

G6 Aluminium and Galvanised
Recessed Covers

Street Furniture

Tree Grilles	features how to specify products	product code	reference	clear opening (mm)	overall (mm)	height (mm)	weight (kg)
GA 	Tree protection grates Composed of 8 pieces cast Black finish -water based paint Option: Epoxy paint finish		GA 4	Ø 400	Ø 1070		53
			GA 5	Ø 500	Ø 1200		66
			GA 6	Ø 600	Ø 1300		74
			GA 7	Ø 700	Ø 1400		78
			GA 8	Ø 800	Ø 1500		86
			GA 25	Ø 500	Ø 2000		167
			GA 26	Ø 600	Ø 2000		161
			GA 27	Ø 700	Ø 2000		152
			GA 28	Ø 800	Ø 2000		146
			GA 29	Ø 900	Ø 2000		140
			GA 30	Ø 1000	Ø 2000		137
C8583 	Four grilles per assembly Galvanised Steel frame 2 piece unit optional extra	C8583	Designer Tree Grille	457	1524	38	
C8581 	Four grilles per assembly Galvanised Steel frame 2 piece unit optional extra	C8581	Designer Tree Grille	444	1219	38	
C8582 	Four grilles per assembly Galvanised Steel frame 2 piece unit optional extra	C8582	Designer Tree Grille	457	1524	38	

A selection of our street furniture is made to order and incurs a lead time.
 Designer Tree Grilles will incur a longer lead time.


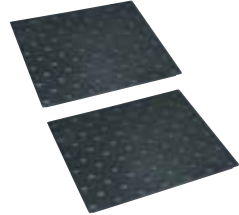
Street Furniture

Tree Grilles	features how to specify products	product code	reference	clear opening (mm)	overall (mm)	height (mm)	weight (kg)
<div>7K039</div> 	Four grilles per assembly Galvanised Steel frame 2 piece unit optional extra	7K039	STANDARD TREE GRILLE	Ø 503	1205 x 1205	40	110
		7K030	STANDARD TREE GRILLE	Ø 450	1000 x 1000	25	110
Bollards							
<div>7K041</div> 	Ductile iron / Steel bollard Customised badging available (Local Authority crest)	7K041	ORNATE BOLLARD	Base Ø 76	1255	915	35
<div>7K009</div> 	Ductile Iron	7K009 7K006	PLAIN BOLLARD PLAIN BOLLARD	Base Ø 82 Base Ø 180	1250 700	1000 500	26 24
<div>7K102</div> 	Ductile iron	7K102	RIDGED BOLLARD	Base Ø 100	855	650	22
<div>STAINLESS STEEL</div> 	Material - Stainless steel 320 Grit satin polish finish	7K015 7K014	STAINLESS STEEL FLAT STAINLESS STEEL FLUTED	Base Ø 101 Base Ø 101	1300 1300	1000 1000	

Street Furniture

Recessed Pavior Covers	features how to specify products	product code	reference	clear opening (mm)	overall (mm)	height (mm)	weight (kg)
SOLO PAV 400kN 	Hinged recessed unit 400kN In fill height of 80 mm Sitting on neoprene seal Suitable for 70 mm paving blocks	536751	Circular frame SOLO O PAV	Ø 600	Ø 850	100	74
		536523	Square frame SOLO C PAV	Ø 600	850 x 850	100	85
Ti 600 P EN124 D400 	Material -ductile iron Recessed covers for pavior infill Machined contact surfaces Assembled components bolted together	515278 515734	Ti 600 P Ti 1200 P	625 x 600 1245 x 600	770 x 820 1390 x 820	125 125	115 205
RRC 250kN 	Recessed unit 250kN Infill depth of 75 mm + 10mm Frame incorporates a cushioning insert to prevent noise and vibration Square frame, square opening Option: Cover infilled with concrete certified NF	510812 510813 510814	RRC 350 RRC 500 RRC 650	300 x 300 450 x 450 600 x 600	420 x 420 600 x 600 750 x 750	95 95 95	35 58 82
3P EN124 C250 	Recessed unit C250 Infill depth of 100 mm +25mm Film of grease renders product waterproof under normal conditions Lifting key -EM sold as an accessory Option: Locked with an OTC or CHC bolt	514512	3P 060 060	600 x 600	710 x 800	80	100
EURO PAVE 400kN 	Recessed unit 400kN Infill depth of 80 mm + 10mm Concrete frame	501451	D 610 RP	Ø 610	Ø 780	160	141

Street Furniture


Paving Covers	features how to specify products	product code	reference	clear opening (mm)	overall (mm)	height (mm)	weight (kg)
SOLO PAVE EN124 D400 	Hinged solid top unit D400 Suitable for paved areas Neoprene seal Safety blocking at 90° Options: OTC locking Vented cover	536745	SOLO CC P S	Ø 600	850 x 850	150	178
SOLO 7 SP EN124 D400 	Hinged solid top unit D400 Suitable for paved areas Neoprene seal Safety blocking at 95° Options: OTC locking Vented cover	522781	SOLO 7 CC SP	Ø 714	900 x 900	125	123
TACTILE PAVING PLATES 	Cast iron plates Non slip blistered texture surface Integral lugs on the base of plate secure the plates into the concrete Option: Choice of RAL colour	522822 522821	PODS 542 PODC 542	490 x 415 x 20 490 x 415 x 20			15 16

Street Furniture

Recessed Products	features how to specify products	product code	reference	clear opening (mm)	overall (mm)	height (mm)	weight (kg)
ALUMINIUM COVER 15kN 	Material - aluminium Slide out design facilitates easy cover removal Double seal Mesh fitted in cover recess to provide grip for in fill material	710815	P AL H55 300	300 x 300	360 x 360	55	
		710817	P AL H55 450	450 x 450	510 x 510	55	
		710816	P AL H55 600	600 x 600	660 x 660	55	
		710818	P AL H55 750	750 x 750	810 x 810	55	
GALVANISED COVER 15kN 	Material - galvanised steel Slide out design facilitates easy cover removal Single continuous rubber seal Locked Mesh fitted in cover recess to provide grip for in fill material	710800	PLAIN 300	300 x 300	360 x 360	70	
		710801	PLAIN 450	450 x 450	510 x 510	70	
		710802	PLAIN 600	600 x 600	660 x 660	70	
		710803	PLAIN 1000	1000 x 1000	1060 x 1060	70	
GALVANISED PAVIOR 15kN 	Material - galvanised steel Cover recess suitable for all types of concrete and clay bricks up to 80mm deep Mesh fitted in cover recess to provide grip for infill material	710819	PAVIOR 300 A	300 x 300	446 x 446	100	
		710820	PAVIOR 450 A	450 x 450	596 x 596	100	
		710821	PAVIOR 6045 A	600 x 450	746 x 596	100	
		710822	PAVIOR 600 A	600 x 600	746 x 746	100	
		710823	PAVIOR 9060 A	900 x 600	1046 x 746	100	
GALVANISED PAVIOR 125kN 	Material - galvanised steel Cover recess suitable for all types of concrete and clay bricks up to 80mm deep Mesh fitted in cover recess to provide grip for infill material	710850	PAVIOR 600 B	600 x 600	720 x 720	100	
		711211	PAVIOR JB4	915 x 445	1075 x 605	100	
		710851	PAVIOR 750 B	750 x 750	870 x 870	100	

For additional dimensions please contact our Sales Team.

Ancillary Products

- 
- H2** Preformed Chambers & Manifold Boxes
 - H3** Fortress Rings
 - H4** Lifting and Locking Keys
 - H6** Precast Concrete Chambers
 - H6** Plastic Gully Pots
 - H7** Marker Plates
 - H7** Bespoke Castings

To compliment our range of municipal castings we also supply a range of ancillary products.

From preformed plastic chambers, plastic gully pots to lifting and locking keys we can supply you with more specific product details, please contact our Sales Team for more information.

Preformed Chambers

We supply a broad range of one piece HDPE preformed chambers in various lengths, depths and widths.



Manifold Water Boxes

Manifold Meter Boxes are available in 4 way, 6 way, 8 way and 10 way options



Fortress Rings

Fortress products provide 150mm depth increments with each ring.

Chambers are constructed from square or rectangular rings.

Products can be supplied as assembled chambers to suit customer requirements.

Material Data

Structural form - High Density Polyethylene
HDPE has excellent chemical resistance to ethanol, acetone, diesel etc., and is unaffected by sulphate ground conditions.

- Recyclable
- Completely impervious to water
- Easy to cut for duct entrie

Available in clear opening sizes of:

300mm x 300mm
445mm x 445mm
600mm x 445mm
600mm x 600mm
915mm x 600mm
915mm x 445mm
915mm x 915mm
1310mm x 610mm



Footway Fortress Rings and ductile covers

Vertical Load rating

When installed correctly, meets the loading requirements of EN124 Class B125
Suitable for areas accessible to all slow moving traffic.

Base Options

Duct and pipe entrie can be provided to suit customer applications.
Bottom plates/floors and grates to protect or locate internal equipment can be provided upon request.



Lifting & Locking Keys

Multileaf Key for Lifting and Locking

Reference 514260 for all Multileaf Covers

NDP Covers Lifting and Locking

Reference 526004

Standard Lifting Key - 2 per set.

Reference 710059 for lifting standard manhole covers
(Large type keyway)

ESB Multi key - Reference 7G003

Joint Box No. 2 Key

Used to lift any of the JB covers.
Reference 7B0742

Joint Box No. 4 key

Reference 7B0740

For blank covers JB4 etc. - use a 14 mm Allen key 7J011 to open bolt and the 7B0740 or the 7B0742 to lift.

14mm Allen Key

Reference 7J011



Horizontal Locking key for
self level covers
Reference 514827



Lifting & Locking Keys

Brass Edged Lifting Key

Reference 710798



Brio Unlocking Key

Reference 7B0089



Traffic Covers Key

Reference 710091



Barri bolt key

Opens CATV/UPC Covers

Reference 7J096



Ermatic lifting key

for ermatic covers

2 per set

Reference

502402



Precast Concrete Chambers

Precast concrete chambers can be provided in various dimensions as requested



Plastic Gully Pots

450 dia Moulded Plastic Road Gully
760 mm high
150 mm outlet pipe
7E009



375 dia Moulded Plastic Road Gully
750 mm high
150 mm outlet pipe
7E010



Plastic Trap Gully
390 x 375 mm opening
400 mm high
100 or 150 mm outlet pipe
7E011



Marker Plates

Cast iron marker plates available badged:

SV - 710396

ScV - 710392

AV - 710393

M - 710397

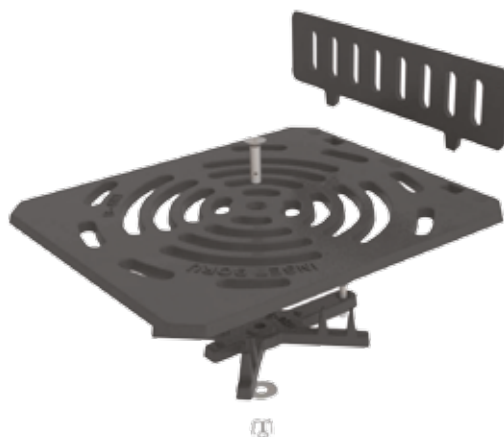
H - 710398

Supplied unpainted.



Bespoke Products

We engage with numerous manufacturing companies in the design and casting of products specific to their own assemblies. We have the expertise to design and create bespoke products and we endeavour to meet non standard requirements from our customers.



ACO Water Management

- I2 Domestic Channel Drainage
- I4 Ground Reinforcement
- I5 Light Duty Channel Drainage
- I6 General Purpose Channel Drainage
- I8 Monocast Channel Drainage
- I9 Heavy Duty Channel Drainage
- I10 Oil Separators
- I12 Rain Water Harvesting (Domestic)
- I13 Stormwater Attenuation and Infiltration

Please contact our Sales Team for additional information on the range of:

- channel widths
- channel invert types
- constant depth, sloping and stepped grating options

for the various product types on pages I2 - I9



Domestic channel drainage

ACO HEXDRAIN

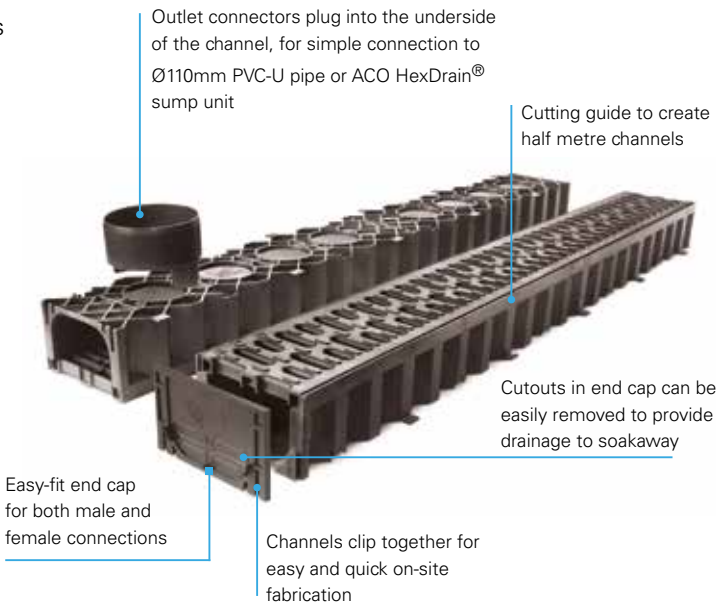
A15

Manufactured from recycled polypropylene, ACO HexDrain® is suitable for a range of domestic applications, and its range of innovative features makes installing drainage channels easier than ever.

Other feature

- Choice of eight vertical outlet positions on every channel
- Choice of gratings suitable for domestic applications
- System CE marked and fully certified to Load Class A15
BS EN 1433:2002

product code	description	length (mm)	width overall (mm)	depth overall (mm)
19310	Channel with black plastic grating 1M	1000	125	80
19313	Channel with galvanised steel grating 1M	1000	125	80



ACO RAINDRAIN

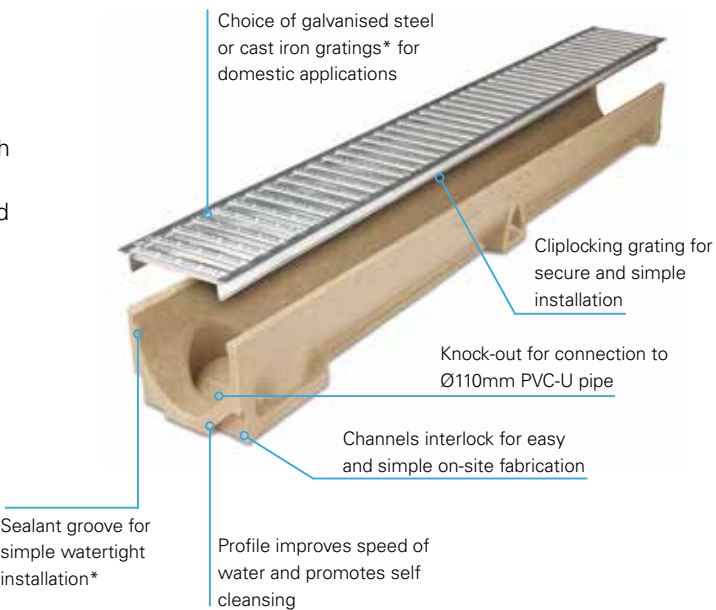
A15/B125*

ACO RainDrain® is a lightweight channel drainage system manufactured from Vienite®. The system is designed to provide surface water drainage for a range of domestic and light duty traffic applications.

Other features

- Lightweight design for easy handling and installation
- Manufactured from Vienite®, ACO's sustainable high strength material
- Improved performance, system CE marked and fully certified to Load Class A15 and B125* BS EN 1433:2002

product code	description	length (mm)	width overall (mm)	depth overall (mm)
47000	Channel with galvanised steel grating 1M	1000	118	97



* B125 loading achieved with cast iron grating option

Domestic channel drainage

ACO HEXDRAIN BRICKSLOT

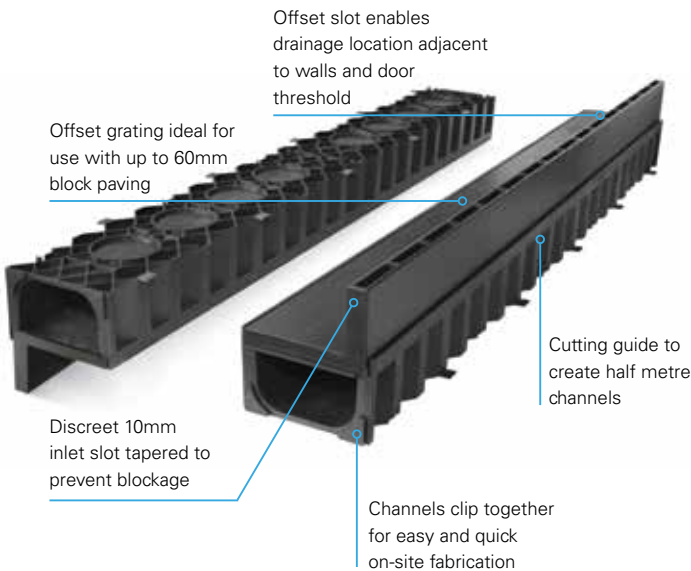
A15

ACO HexDrain® Brickslot provides a discreet slot drainage system for domestic block paving installation and threshold drainage. Manufactured from 100% recycled polypropylene, the highly successful 1m ACO HexDrain® channel has been combined with a new offset slot cover specifically designed for slab and block paving, to create ACO HexDrain® Brickslot.

Other features

- Choice of eight vertical outlet positions on every channel
- Hexagonal columns give the channel excellent strength for load bearing
- System CE marked and fully certified to Load Class A15 BS EN 1433:2002

product code	description	length (mm)	width overall (mm)	depth overall (mm)
19555	Channel with black plastic slotted cover	1000	125	140



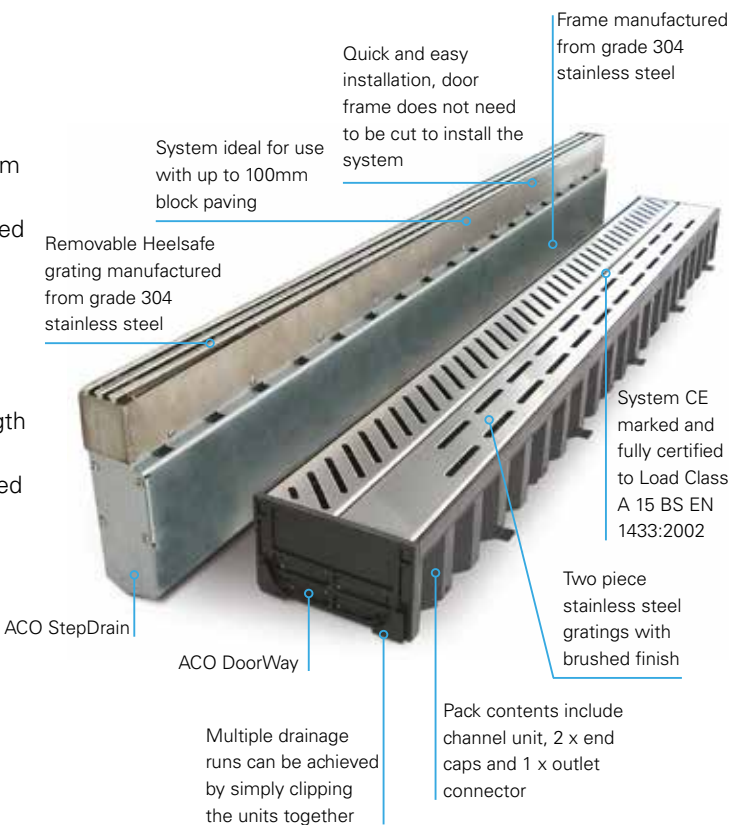
ACO STEPRAIN / ACO DOORWAY DRAIN

ACO StepDrain is a slimline stainless steel unit with a removable Heelsafe grating. The system is available in 940mm and 1088mm lengths. ACO DoorWay Drain is a simple, easy to use 1m unit, provided with all the accessories needed to complete a domestic threshold installation.

Other features

- Lightweight design for easy handling and installation
- Manufactured from Viente®, ACO's sustainable high strength material
- Improved performance, system CE marked and fully certified to Load Class A15 BS EN 1433:2002

product code	description	length (mm)	width overall (mm)	depth overall (mm)
96809	StepDrain	940	53	159
40015	Doorway Drain	1012	125	80



Domestic channel lighting / Ground reinforcement

ACO EYELED

B125

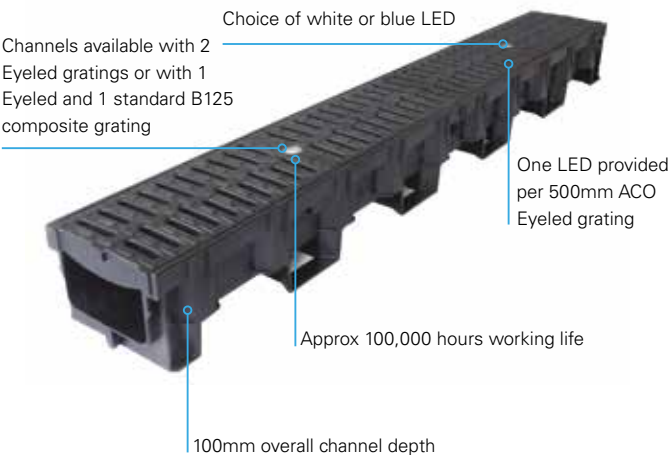
ACO Eyeleds is a high quality surface water drainage system for use in pedestrian and light vehicle applications such as patios, drives, and private parking areas.

The complete ACO Eyeled channel assembly consists of a 1m drainage channel and two 500mm ACO Eyeled gratings fitted with an LED spotlight, which is available in white or blue. Channels and gratings are manufactured from high strength black recycled polypropylene and can be used to provide distinctive accents and enhancements to many applications.

Other features

- Environmentally friendly product – manufactured from recycled polypropylene and 100% recyclable
- Each ACO Eyeled grating comes complete with a watertight cable connection
- System CE marked and fully certified to Load Class B125 BS EN 1433:2002

product code	description	length (mm)	width overall (mm)	depth overall (mm)
11404	Channel with 2 Eyeled gratings	1000	138	100



ACO GROUNDGUARD / ACO STABILISATION FABRIC

While channel systems are ideal for the localised collection of water for storage or treatment, it is not always necessary to move water away from where it lands.

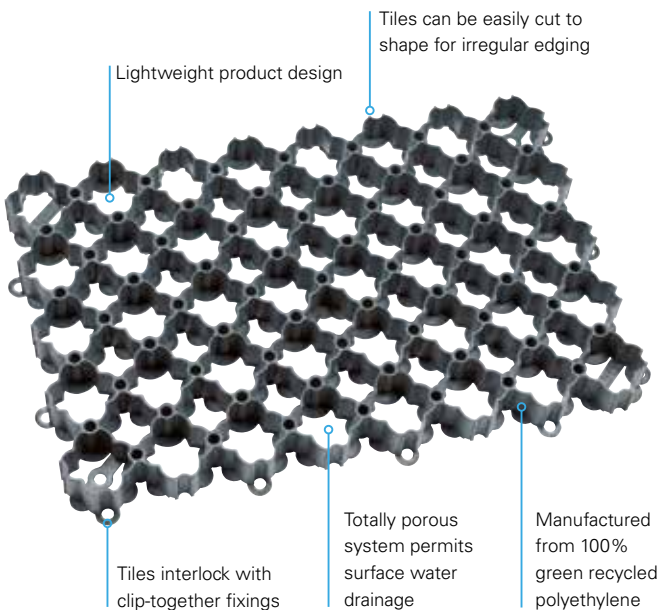
ACO GroundGuard is a lightweight ground reinforcement system ideal for grass or gravel stabilisation. This type of surface helps to reduce the risks of potholes, rutting or grass damage.

The system is exceptionally lightweight and strong, making installation quick and easy. ACO GroundGuard is suitable for a wide range of applications including paths, drives, parking areas and access routes.

Other features

- Strong, robust system certified to 250 tonnes per square metre
- ACO GroundGuard specification coverage: 4.42 tiles per square metre
- Product design ensures easy handling and installation

product code	description	length (mm)	width overall (mm)	depth overall (mm)
81070	Ground guard tile	585	385	38



Light duty channel drainage

ACO HEXDRAIN PRO

B125/C250

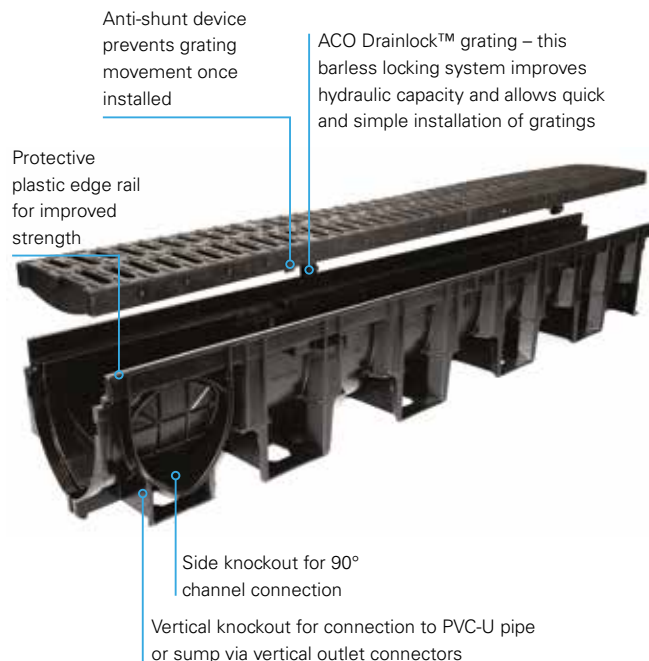
Manufactured from recycled polypropylene, ACO HexDrain® Pro is a high quality channel drainage system ideal for light to medium duty traffic applications.

The high strength 1m black plastic channel has integral edge rails for improved strength and comes complete with Heelguard™ black gratings fitted with ACO's Drainlock™ barless locking system.

Other features

- Textured external surfaces and anchors key product securely into concrete surround
- V-shaped ultra smooth channel bore improves speed of water flow and promotes self cleansing
- CE marked and fully certified to Load Class B125/C250 BS EN 1433:2002

product code	description	length (mm)	width overall (mm)	depth overall (mm)
11025	Channel with black plastic slotted cover	1000	138	150



ACO CIVICDRAIN

B125/C250

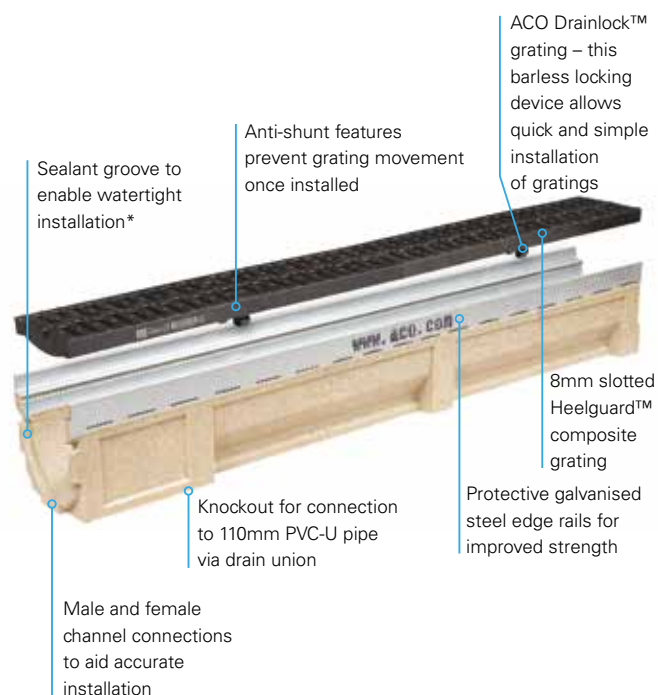
ACO CivicDrain® is a lightweight channel drainage system for light to medium duty traffic applications.

Manufactured from Vienite®, ACO's high strength recycled polymer concrete, the 1m channel has a 100mm wide bore and is available in three channel depths to create a stepped system where required.

The channel unit comes complete with black composite Heelguard™ gratings and protective galvanised steel edge rails.

Other features

- Profile improves speed of water and promotes self cleansing
- CE marked and fully certified to Load Class B 125 / C 250 BS EN 1433:2002
- Strong and lightweight polymer concrete design improves stability and anchors product into concrete surround



*Watertight installations can be achieved with use of appropriate construction detail. ACO CivicDrain® complies with watertightness requirements of BS EN 1433.

General purpose channel drainage

ACO SLIMLINE

C250

Manufactured in one slim, lightweight piece, ACO Slimline® is easy to specify, stock and install. The channel system is manufactured from polymer concrete and is a massive 75% lighter than conventional concrete slot drains of similar strengths. In turn, this allows a much shallower installed depth, saving time and money on installation. Polymer concrete is completely impervious to water, eliminating spalling and frost damage common with conventional concrete products. Highly resistant to chemical attack, it is ideal where detergents are likely to be used.

Other features

- Full range of accessories available
- Fully certified to Load Class C250 BS EN 1433:2002
- Corrosion and water-resistant for greater longevity

product code	description	length (mm)	width overall (mm)	depth overall (mm)
7110	Slimline channel	1000	146	146
7187	Slimline channel	500	146	146



ACO MULTIDRAIN PPD RANGE

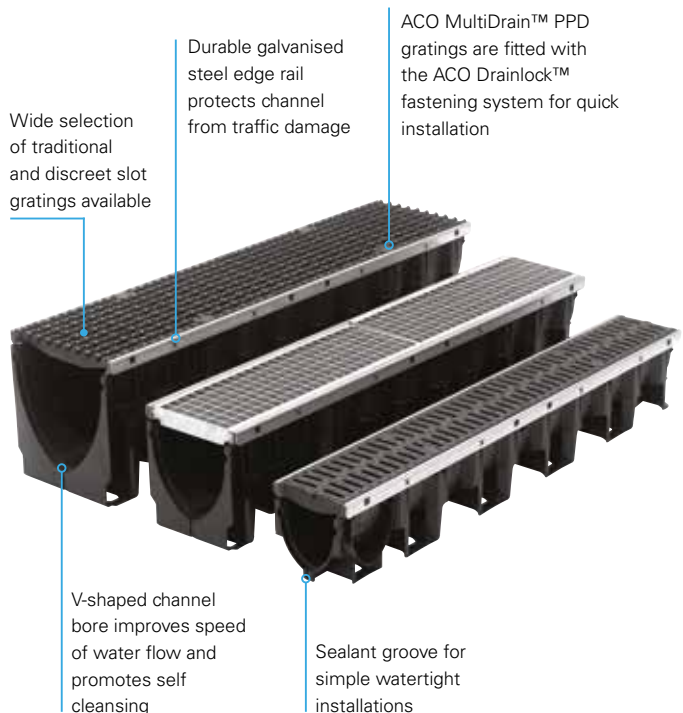
D400

The high quality 1m black plastic channel unit forms the main component of the system, which is complemented by a wide choice of ACO Drainlock barless locking gratings. The ACO MultiDrain™ MD system is available in three widths, 100mm, 150mm and 200mm and has shallow and constant depth channels for optimum performance and system design.

Other features

- High quality channel CE marked and certified to Load Class D400 BS EN 1433:2002
- Security locking option available to restrict unwanted grating removal

product code	description	length (mm)	width overall (mm)	depth overall (mm)
11140	M100PPD 0.0	1000	142	150



General purpose channel drainage

ACO MULTIDRAIN MD RANGE

D400

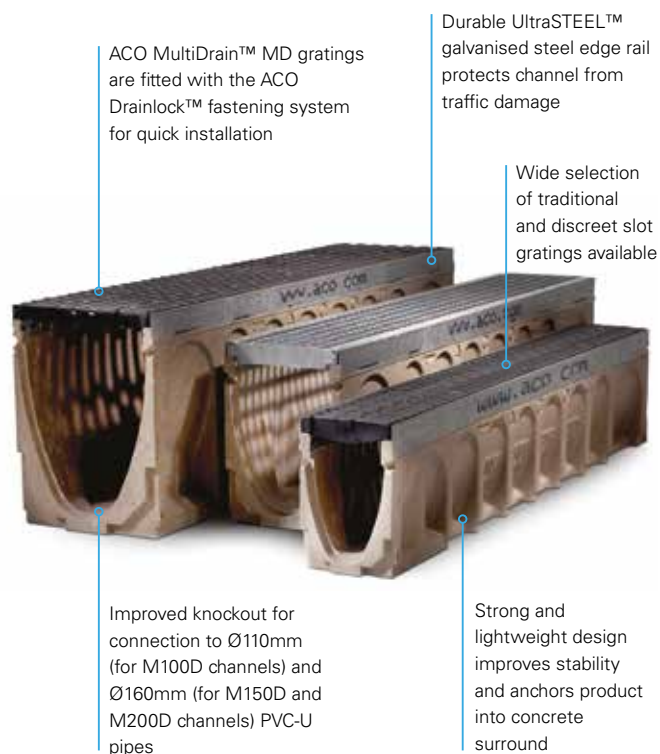
The ACO MultiDrain™ MD System is available in both sloping and constant depths and has a range of channel widths: 100mm, 150mm and 200mm. The channel unit forms the main component of the system which can then be combined with a grating to suit the required application.

Other features

- Strong and robust channel manufactured from Vienite®, ACO's sustainable high strength material
- ACO MultiDrain™ MD System is CE marked and fully certified to Load Class D400* BS EN 1433:2002
- Security locking option available to restrict unwanted grating removal

product code	description	length (mm)	width overall (mm)	depth overall (mm)
23000	M100D 0.0	1000	135	150

* Not suitable for carriageways of public roads or motorways



ACO MULTIDRAIN MD BRICKSLOT

C250/D400

Designed as standard with a Heelguard™ 10mm offset drainage inlet, ACO Brickslot is a subtle and unobtrusive grating which can be combined with ACO MultiDrain™ MD and PPD to complement discreet drainage applications. Compatible with most paving materials, the vertical sides of the grating enable pavements to be laid directly to the unit's edge.

Other features

- The ACO Brickslot grating is designed to be used with ACO MultiDrain™ MD and PPD 100mm and 150 channels
- ACO MultiDrain™ MD Brickslot system is CE marked and fully certified to Load Class C250/D400* BS EN 1433:2002

product code	description	length (mm)	width overall (mm)	weight (kg)
23460	Brickslot galvanised steel	1000	135	7
23461	Brickslot galvanised steel	500	135	3

* Not suitable for carriageways of public roads or motorways



Monocast channel drainage

ACO PARKDRAIN

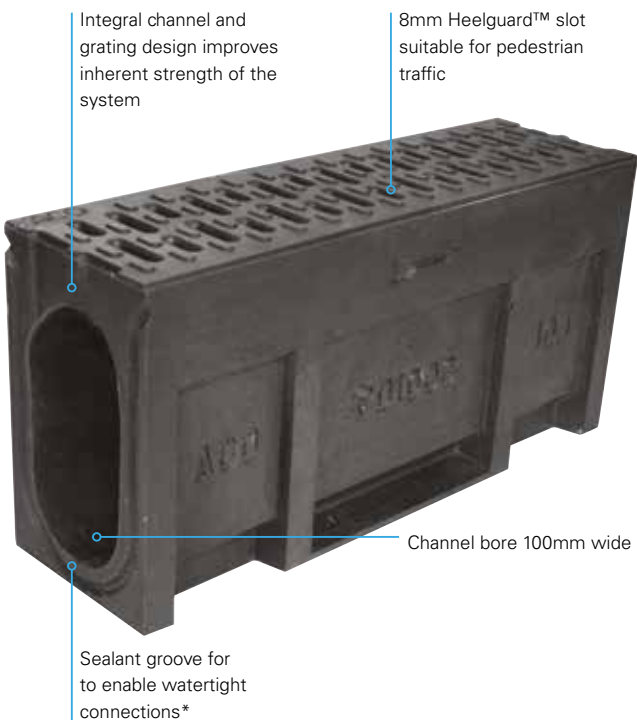
C250

ACO ParkDrain® is a robust one-piece drainage system suitable for use in pedestrian areas, car parks and hard landscaped areas. The system is manufactured from Vienite®, ACO's sustainable high strength material with up to four times the compressive strength of normal OPC. Its one-piece design with integral grating means that it is not vulnerable to vandalism or loosening. Access for cleaning is provided by rodding or sump units to ensure maintenance is easy.

Other features

- ACO ParkDrain® units supplied in 500mm lengths. ACO Mini ParkDrain® units supplied in 1m lengths
- Level or stepped invert units for efficient scheme design
- Strong and lightweight design
- System is CE marked and fully certified to Load Class C250 BS EN 1433:2002

product code	description	length (mm)	width overall (mm)	depth overall (mm)
30101	PD100 C 10.1channel	500	150	250



*Watertight installations can be achieved with the use of appropriate construction detail. ACO ParkDrain and ACO RoadDrain comply with watertightness requirements of BS EN 1433.

ACO ROADRAIN

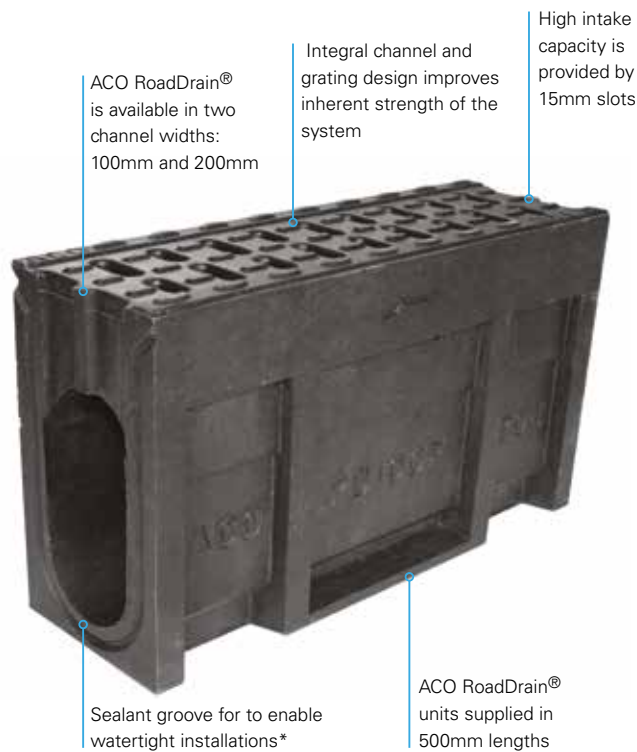
D400

ACO RoadDrain® is a tough one-piece channel drainage system ideal for medium to heavy-duty highway, distribution yards and airfield applications. Manufactured from Vienite®, ACO's sustainable high strength material, the one-piece system is strong and robust in design and the absence of separate gratings eliminates the risk of loss or vandalism.

Other features

- Range of accessories available for simple connection to underground drainage
- ACO RoadDrain® is CE marked and fully certified to Load Class F900 BS EN 1433:2002
- Level or stepped invert units for efficient scheme design.
- Complies with IAN 117/08 and is Kitemarked to BS EN 1433:2002 D400 for highway use

product code	description	length (mm)	width overall (mm)	depth overall (mm)
32101	PD100 F 10.1channel	500	160	250



*Watertight installations can be achieved with the use of appropriate construction detail. ACO ParkDrain and ACO RoadDrain comply with watertightness requirements of BS EN 1433.

Heavy duty channel drainage

ACO S RANGE

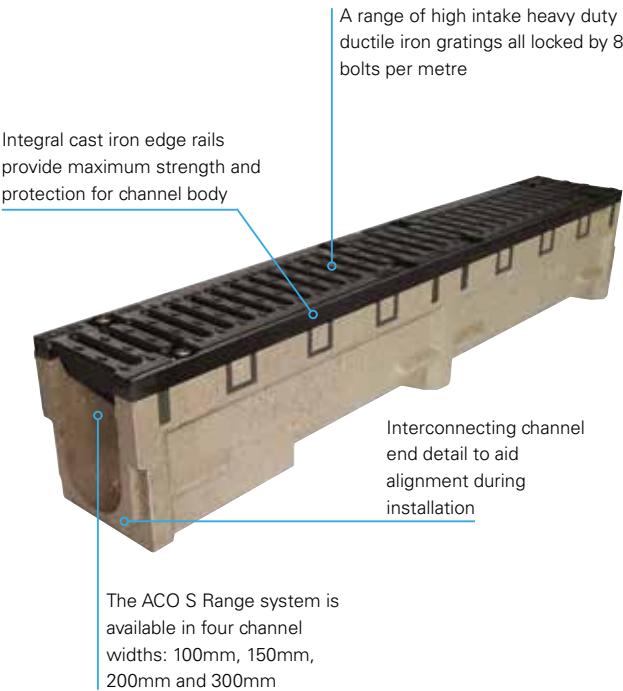
F900

Manufactured from Vienite®, ACO sustainable high strength material, ACO S Range is tough channel drainage system with excellent chemical resistance. Integral cast iron edge rails provide maximum protection for the channel body. The system is available in four channel widths and is provided in constant and sloping depths for optimum performance and system design.

Other features

- Traditional channel and grating drainage system
- Strong and robust design for demanding heavy duty applications
- Constant and sloping depth channels available
- Fully CE marked and certified to Load Class F900 BS EN 1433:2002

product code	description	length (mm)	width overall (mm)	depth overall (mm)
0269	S01	1000	155	137



Options and Accessories

Gratings for S100 system only

ACO S100 channels have a choice of gratings to suit a range of applications.

Load Class E600:
Ports and docksides.
Solid ductile iron cover.

Load Class F900:
Aircraft pavements.
A selection of ductile iron gratings available in slotted, Heelguard™ and intercept designs.

Gratings for S150, S200 and S300 systems
ACO S150, S200 and S300 channels come complete with a ductile iron grating.

Load Class F900:
Aircraft pavements.
Slotted ductile iron grating.



Note: All ACO S Range gratings come complete with bolts to ensure the system can be locked and accessed when required.

057 91 23100

Combined kerb and drainage

ACO KERBDRAIN

D400

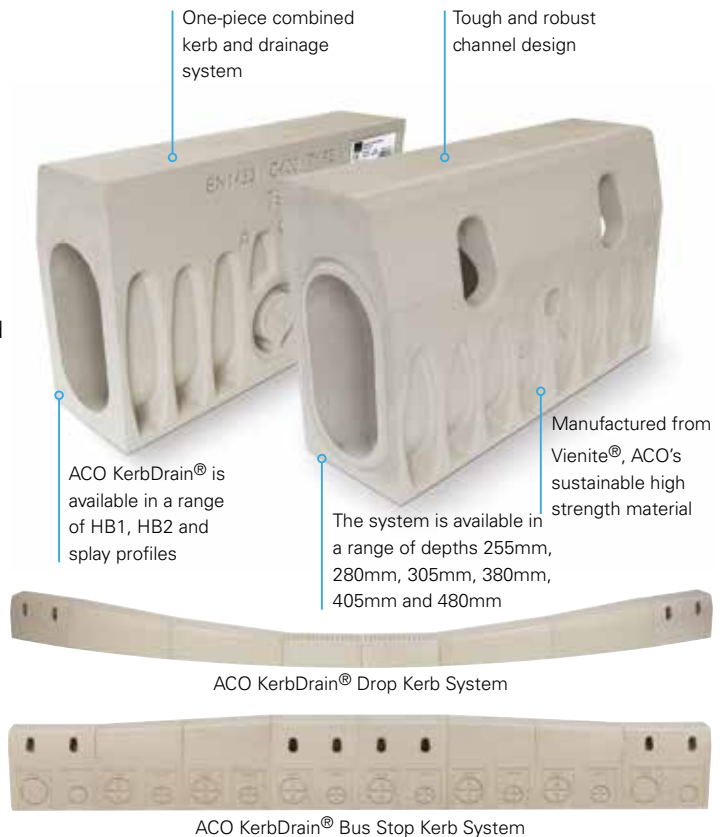
ACO KerbDrain® is a kerb drainage system which conforms to Load Class D400 BS EN 1433:2002.

The system is available in a range of HB1, HB2 and SP kerb stone profiles to meet a wide range of applications.

The ACO KerbDrain® system has been extended with complementary products consisting of perforated and flush centre stones, drop kerb assemblies, radius units, 90° external quadrant (KD305), 90° internal angle (KD305), Splayed (KD480), Bus Stop (KD480), etc.

Other features

- Complies with IAN 117/08 and is Kitemarked to Load Class D400 BS EN 1433:2002 for highway use
- Full range of accessories available including drop kerb assemblies, radius units and bus stop kerbs
- Range of accessories available for simple connection to underground drainage



Domestic rainwater harvesting

ACO RAIN-CEPTOR

The ACO Rain-Ceptor™ range of rainwater harvesting tanks is designed for two applications. The direct feed system features a pumped feed for connection to domestic appliances where non-potable water can be used. The garden irrigation system is for exterior use.

Storage volumes range from 1380 to 4120 litres to meet the requirements of a wide range of property sizes and rainfall volumes.

All tanks are fitted with an integral filter, and tanks for connection to a sewer feature an integral anti-surge valve. A low water level alarm is fitted to all tanks with mains top-up.

Other features

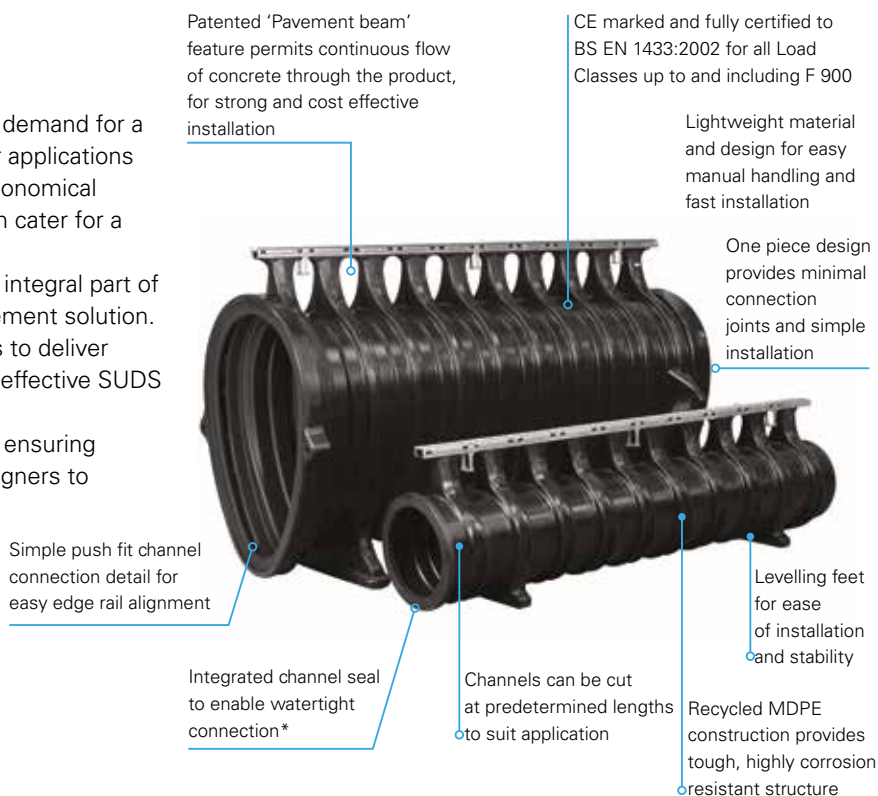
- Galvanised steel access cover available
- Integral filter uses 'first flush' principle and prevents leaves and debris entering the chamber
- Low water level alarm (mains top-up tanks only)
- System designed in accordance with BS 8515:2009 Rainwater harvesting systems - Code of practice
- Tanks come with all necessary components
- Supplied with mains top-up or run-dry pump protection



High performance channel drainage

ACO QMAX

ACO Qmax® has been developed to satisfy the demand for a versatile, high capacity slot drainage system for applications involving small to large catchment areas. For economical system design and installation, ACO Qmax® can cater for a wide range of applications to any load class. ACO Qmax® is specifically designed to form an integral part of any modern, sustainable surface water management solution. The system provides all necessary components to deliver conveyance, attenuation and source control for effective SUDS drainage schemes and designs. The ACO Qmax® system has five channel sizes ensuring greater system flexibility for engineers and designers to optimise scheme hydraulics.



Edge rails

ACO Qmax® channels are available in the following edge rail designs

Ductile iron edge rails

ACO Q-Flow

ACO Q-Guard



ACO Q-Flow and Q-Guard ductile iron edge rails for applications in concrete and asphalt pavements

Galvanised steel edge rails

ACO Q-Flow

ACO Q-Guard



ACO Q-Flow and Q-Guard galvanised edge rails for applications in concrete and asphalt pavements

ACO Q-Slot steel edge rail



ACO Q-Slot hot dipped galvanised steel edge rails for pedestrian applications in block, slab and natural stone pavements

Accessories



*Watertight installations can be achieved with the seal in conjunction with appropriate construction detail.

ACO Qmax® complies with watertightness requirements of BS EN 1433.

Oil separators

ACO Q-CEPTOR

ACO Q-Ceptors are available in a range of chamber sizes and flow rates ideal for use in car parks, maintenance areas, and industrial and residential applications. Manufactured from polyethylene, the innovative single chamber design of the ACO Q-Cceptor is extremely compact and robust offering significant advantages in installation and handling costs over traditional GRP products.

ACO Q-Ceptors are available in two performance classes as specified by BS EN 858-1:2002.

Class 1 separators are designed to achieve discharge concentrations of less than 5mg/litre of oil under standard test conditions. These separators are required for discharges to surface water drains and the water environment.

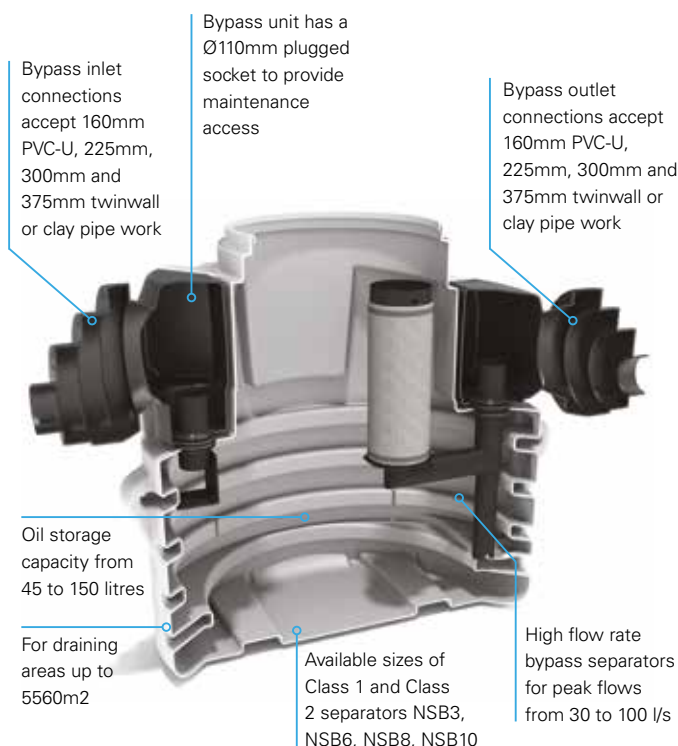
The Class 1 ACO Q-Cceptor uses high performance coalescing filters positioned above the silt storage area, ensuring optimum performance under the harshest conditions. Under test conditions the ACO Q-Cceptor reduces concentrations to less than 1mg/litre of oil.

Class 2 separators are designed to achieve discharge concentrations of less than 100mg/litre of oil under standard test conditions. They are suitable for dealing with discharges where a lower quality requirement applies, for example where the sewer provider allows discharges to the foul system.

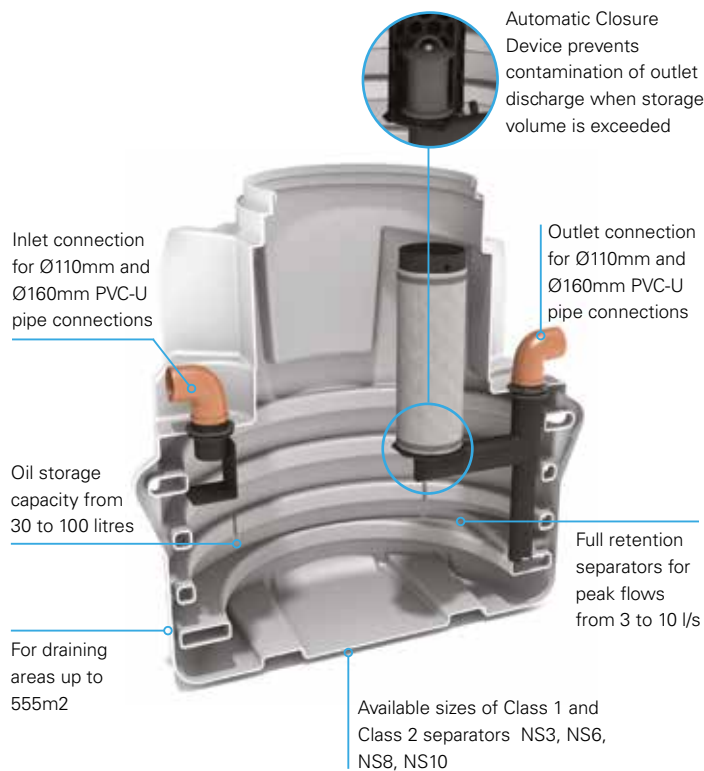
Both Class 1 and Class 2 ACO Q-Ceptors are available as bypass or full retention separators.

Other features

- Compact design reduces excavation and installation costs
- Highly durable polyethylene body, less prone to damage than GRP units
- Minimum working capacity of 1,000 litres excluding silt complies fully with PPG3
- Connection for optional sampling pump which obviates the need for separate and expensive sampling chambers
- Large diameter opening for easy maintenance access
- Extension shaft Ø716mm available
- Cast iron solid cover and frame available
- Coalescing filter located for simple removal and maintenance. Unit can be cleaned by normal water pressure
- All Environment Agency compliant and certified to BS EN 858-1:2002 and BS EN 858-2:2003
- Ribbed body design resists deflection during installation and provides concrete key/anchors



ACO Q-Cceptor bypass oil separators



ACO Q-Cceptor full retention oil separators

Stormwater attenuation and infiltration

ACO STORMBRIXX

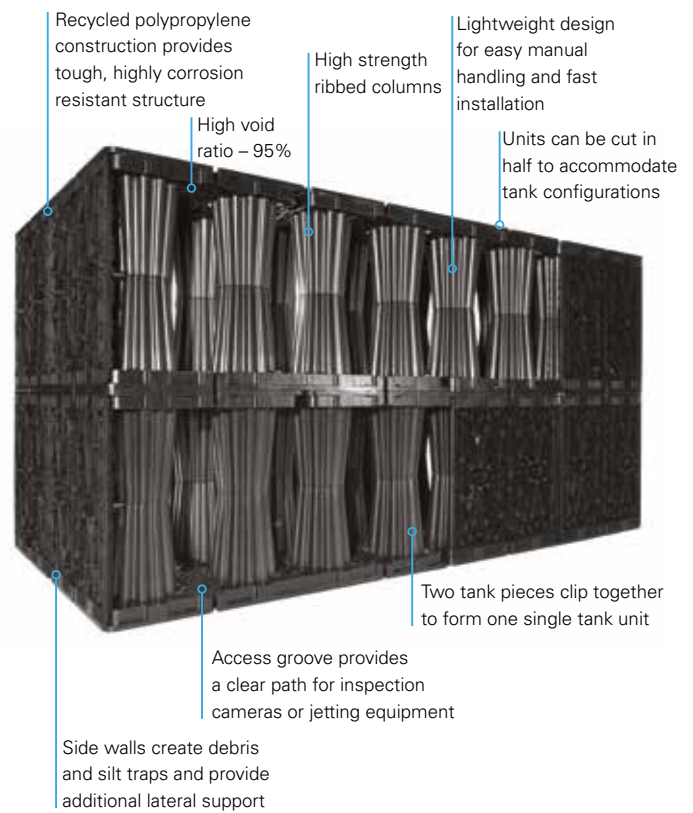
ACO StormBrixx is a unique and patented plastic geocellular stormwater management system. Designed for surface water infiltration and storage, its versatility allows it to be used in applications across all construction environments as a standalone solution or as part of an integrated sustainable urban drainage (SUDS) scheme.

ACO StormBrixx addresses the fundamental requirement of simple access and maintenance for adopting drainage authorities. The open cell structure permits completely free access for CCTV and jetting equipment which allows the whole system, including all the extremities, to be inspected and maintained from just a few access points.

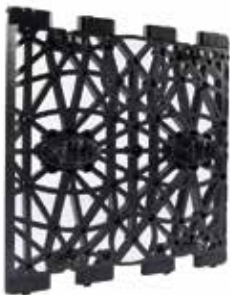
ACO StormBrixx benefits from a patented cell brick and cross bonding feature which provides unparalleled stability in the construction of the tank. Where brickbonding is not used or for multilayered tank structures, connectors are available to support the integrity of the structure.

Other features

- Low flow and drain down facility
- Delivery, site logistics and installation are all dramatically simplified, as a result of the system's 'stackable' design
- Access chamber provides access for cleaning, large pipe diameter inlets and silt management
- Inspection points for camera or jetting equipment



Accessories



Side panels



Layer connectors



Top covers



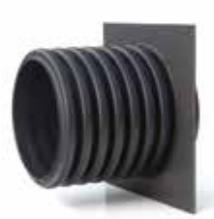
Inspection points



Ø110mm Pipe connector



Ø160mm Pipe connector



Ø225mm Pipe connector



Ø300mm Pipe connector

Flow control

ACO Q- BRAKE VORTEX

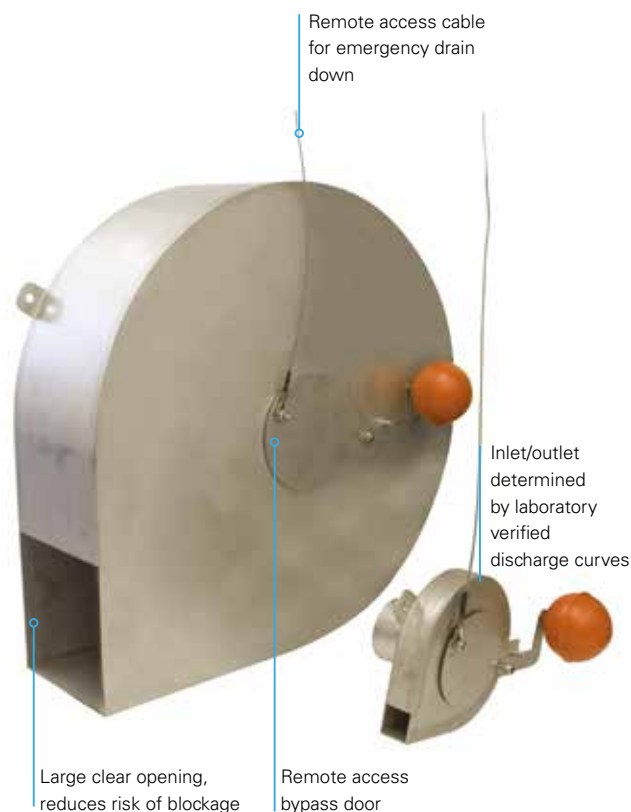
The design of a vortex flow control is based on the fluid mechanics principle of the forced vortex, which permits flow regulation without any moving parts.

ACO Q-Brake Vortex utilises the upstream head and discharge to generate a 'vortex' within the structure of the unit.

ACO Q-Brake Vortex is fitted with an integral bypass door which in the event of a blockage can be opened so the unit can be drained. A stainless steel wire attached to the bypass door is run to cover level and provides control of the bypass door. Once the water level within the manhole subsides the blockage can be cleared.

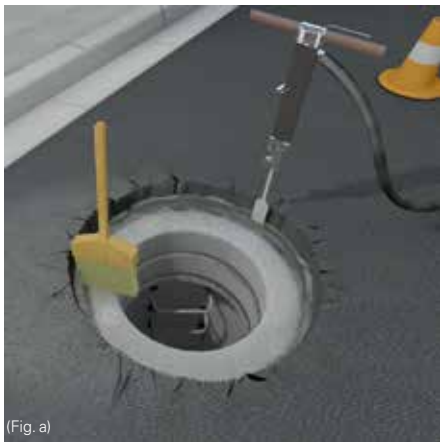
Other features

- ACO Q-Brake Vortex allows a control equal to an orifice plate having a cross section area 4 to 6 times smaller
- All parts are welded to BS 4872
- Range of manhole fixings available
- Manufactured from grade 304 stainless steel
- Flexible fitting options



Installation guidelines

These instructions are intended to assist the work of the company responsible for an installation. They are supplied for general information and apply to situations that present no particular difficulties.



(Fig. a)

Rebate (Fig. a)

- Prepare a rebate corresponding to the dimensions (200 -250 mm approx) shown in figure a
- Prepare down to the concrete where there are no cracks.
- Clean the rebate surfaces to eliminate any dust, mud or grease



(Fig. b)

Frame installation, levelling, and shuttering (Fig. b)

- Lower frame into the rebate
- Correctly position the frame over the clear opening of the chamber (the frame should not protrude over the clear opening).
- Place the frame at the correct level using appropriate wedges (e.g. suspend with a beam).
- Shutter the gap.
- For large, light-weight frames (e.g. mild steel welded construction, Class B 125, C 250 or access covers with machined surfaces) install the covers, check they fit properly and do not rock. If necessary, correct the fitting and leave in place whilst fixing.



(Fig. c)

Fixing (Fig. c)

- Prepare the fixing material according to the suppliers' specifications. A quick-setting non shrinking mortar is recommended if normal curing time for standard mortar cannot be secured. (Minimum 7 days).
- Pack up the mortar under frame (mortar must come up along the shuttering). In order to ensure an even distribution of traffic load and to avoid rocking, the frame must have 100% contact with the fixing material.
- Fill the rebate unless a layer of asphalt is specified, in which case a 20 mm depth must be left unfilled.
- Cover filled rebate with wet canvas or tarpaulin and allow mortar to cure before re-opening to traffic.

Finishing and re-opening to traffic

- Remove shuttering.
- Render the chamber wall with mortar (if necessary).
- Place cover in the frame, ensuring it sits squarely (clean contact surfaces as necessary).
- Pour asphalt finishing layer where applicable.
- Re-open to traffic.

Important: Gas struts

Safety rule for removal of gas cylinders

- Never remove a pressurised gas strut
- If dismantling is required: ensure that the end caps of the cylinder slide freely on their fixing pins. If this is not the case, the cylinder must be completely neutralised.

Neutralisation procedure for cylinders.

- The gas springs have a pressure between 20 and 180 bars, you must therefore neutralise these devices before removal. For reasons of safety, always follow the procedure below:
- Lightly tighten the tube
- Slit tube perpendicular to the axis in an area between 30 and 35 mm from the bottom of the tube.

To carry out this operation:

- Safety glasses must be worn
 - Use a hacksaw to cut.
 - Place a cloth on the blade.
 - When you hear a whistle sound, stop sawing.
- Degassing is complete when the rod can be easily manipulated by hand.

The company responsible for installing access covers and frames may make changes or improvements as necessary.

EJ advises that these instructions are provided for general information. The company carrying out the installation should amend as necessary as they would be responsible in the case of an accident.



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**Product Catalogue N°4
June 2013**