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IDS®

Access Chamber Solutions



Exceptional products. Exceptional development.

EJ is the world leader in the design, manufacture and distribution of access solutions for water, sewer, drainage, telecommunications and utility networks worldwide. EJ is a family owned business and has been for over 135 years. EJ has a legacy of continuous improvement and innovation and now supplies products to over 140 countries.

Our commitment to you is that we will continue to create customer-oriented solutions that greatly improve access to infrastructure. We will do that in ways that are safer and more environmentally friendly

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.

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.

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For over 135 years, we have fostered strong relationships around the world.

Ingenuity and craft

With ingenuity and craft, we have shaped molten iron into products that serve as the infrastructure of neighbourhoods, villages and cities.

Integrity and heart

With integrity and heart, we have responded to our customers' needs and expectations and built names for ourselves.

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 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 UK: 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 now a global enterprise that spans 5 continents promoting innovation, quality and a commitment to customer service.



Our EMEA iron foundry is located in **Picardie**, France. With a 100,000 tonnes capacity, 42 hectares (over 100 acres). We are ISO 9001, ISO 14001, ISO 50001 and OHSAS 18001 certified for: quality, management, environment and health and safety.



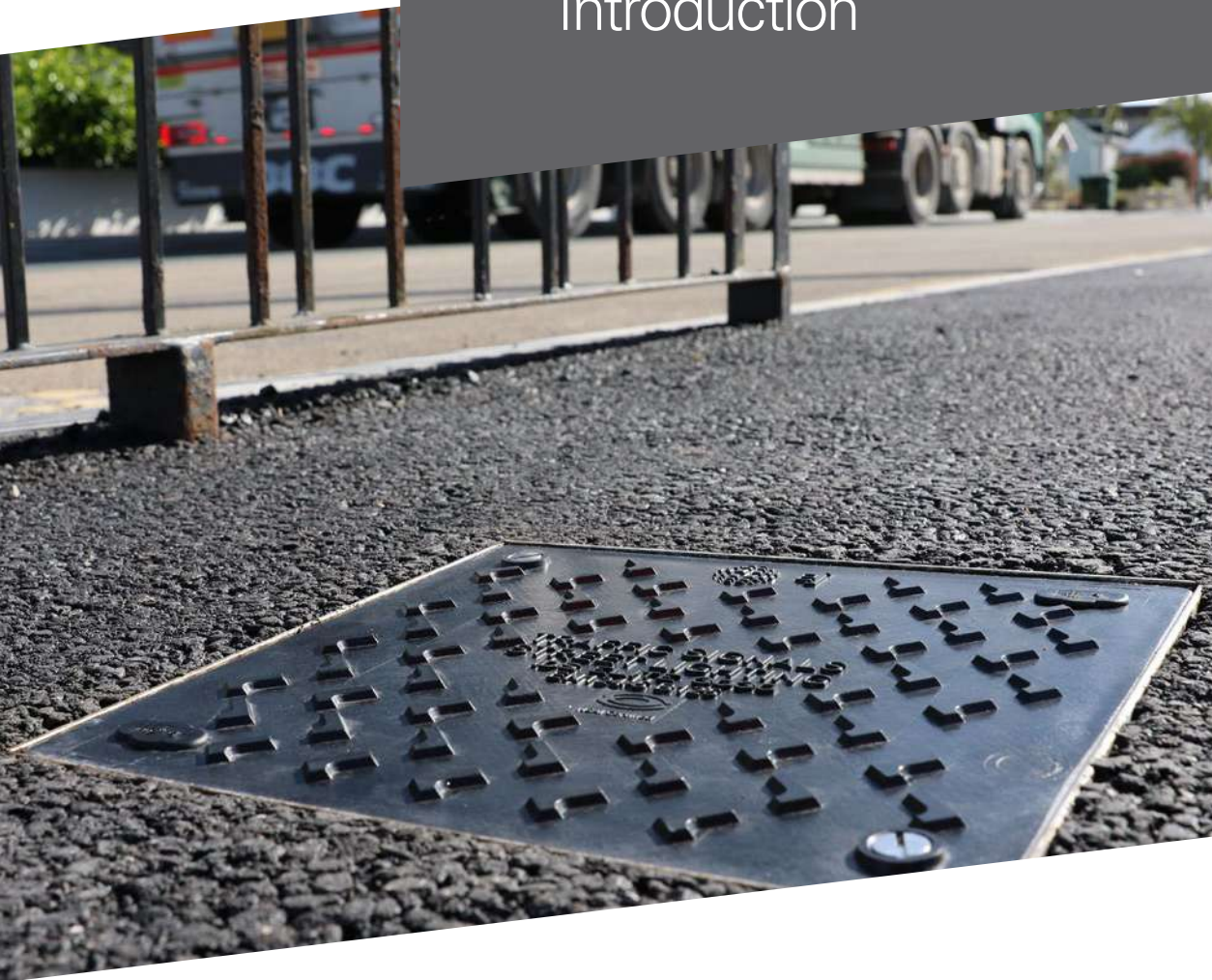
Located in **Birr**, Ireland we have a fabricated steel facility. Management system certification includes ISO 9001, ISO 14001 and OHSAS 18001 for quality, environment, health and safety.



Located in **Ardennes**, France, we have another fabrication facility containing the most advanced technology in Europe such as plasma cutting & robotic welding, and provides 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, environment, health and safety.



IDS® Introduction



IDS®

Introduction

Our IDS® range of access chambers and covers have been designed and approved for use by local authorities nationwide.

The chambers and covers have been specified extensively in numerous traffic signal situations, from major motorway junctions to high street pedestrian crossings.

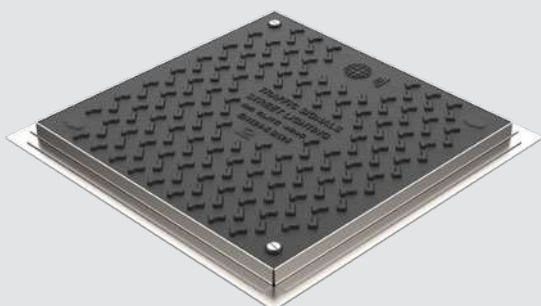


NEXUS™
Structural Chamber



DATUM™
Non-Structural Chamber

EN 124-5:2015 Certified



IDS® ELITE
Composite Covers



SWITCH™
Pole Retention Socket



Project Examples

Project	Product Supplied
Auckland Castle, Bishop Auckland	NEXUS™ Fabricated Steel Covers
Garroch Roundabout, Dumfries	NEXUS™
A5 Roundabout, Nuneaton	NEXUS™ Composite Covers
A9, Scotland	NEXUS™ Axis™ Hinged Ductile Iron
Birmingham Airport	NEXUS™ PS2100 Ermatic®
Bristol Airport	NEXUS™ DATUM™
JLR Liverpool	NEXUS™
Carkeel Roundabout, Cornwall	NEXUS™ DATUM™ Composite Covers
Derbyshire Police HQ	NEXUS™
Temple Farm, Chelmsford	NEXUS™
DNRC, Loughborough	NEXUS™
Newark Infrastructure	DATUM™ NEXUS™ Composite Covers
A14	NEXUS™ Ermatic®
JLR Kenilworth	NEXUS™ Axis™ Hinged Ductile Iron
Hespin Wood Landfill Site	NEXUS™
IPort Doncaster	NEXUS™ Composite Covers Fabricated Steel Covers
Chesterton Sidings	DATUM™
Lidl Exeter	NEXUS™ Composite Covers
DHL Warehouse, East Mids Airport	DATUM™ NEXUS™ Composite Covers
Harbour Quay, Canary Wharf, London	NEXUS™
East Midlands Gateway, Derby	NEXUS™ Composite Covers
Alton Towers, Alton	NEXUS™
University of Cranfield, Bedford	DATUM™



IDS® Access Chambers



NEXUS™**Structural Chamber**

Sections



Assembled



Assembled with Cover

NEXUS™ is a unique patented twin wall access chamber system which comprises of high quality polypropylene modules that are assembled into ring sections prior to delivery. The system offers raising ring and duct entry ring sections as detailed. Each ring comprises male and female 'quick-click' connections enabling each to be quickly stacked in an array of arrangements thus allowing the positioning of duct entry sections to accommodate varying depths of ducting. For ducts exceeding the standard 64 mm and 114 mm diameter entry points, the raising ring can simply be core-drilled on site to accommodate all sizes of duct. On larger ducts it is recommended that raising ring sections are drilled for all duct entries in order to maintain structural rigidity.

Standard Sizes

Code	Clear Opening (mm)	O/all Dim (mm)	Raiser Ref	Duct Entry Ref	Bracing	Entry Points
NX3030	300 x 300	400 x 400	RP	DE		8
NX4530	450 x 300	550 x 400	RP	DE		10
NX4545	450 x 450	550 x 550	RP	DE		12
NX6045	600 x 450	700 x 550	RP	DE		14
NX6060	600 x 600	700 x 700	RP	DE	*	16
NX6767	675 x 675	775 x 775	RP	DE	*	16
NX7560	750 x 600	850 x 700	RP	DE	*	18
NX7575	750 x 750	850 x 850	RP	DE	*	20
NX9045	900 x 450	1000 x 550	RP	DE	*	18
NX9060	900 x 600	1000 x 700	RP	DE	*	20
NX9075	900 x 750	1000 x 850	RP	DE	*	22
NX9090	900 x 900	1000 x 1000	RP	DE	*	24
NX100100	1000 x 1000	1100 x 1100	RP	DE	*	24
NX12060	1200 x 600	1300 x 700	RP	DE	*	24
NX12067	1200 x 675	1300 x 775	RP	DE	*	24
NX12075	1200 x 750	1300 x 850	RP	DE	*	26
NX12090	1200 x 900	1300 x 1000	RP	DE	*	28
NX120120	1200 x 1200	1300 x 1300	RP	DE	*	32

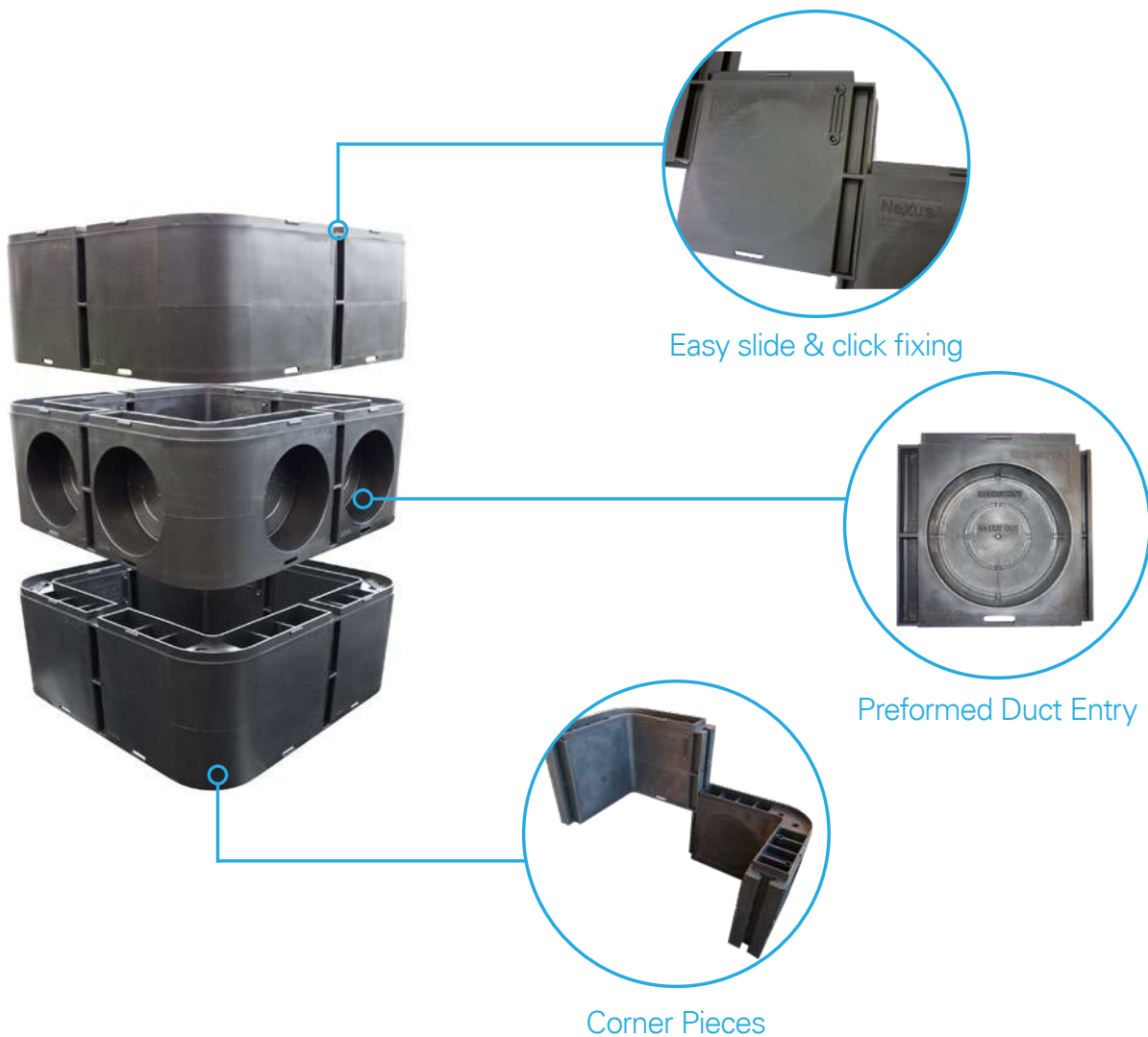
Further sizes available in 25 & 150 mm increments

NEXUS™**Structural Chamber****Features:**

- High quality modular system
- Structural high strength without concrete surround
- Lightweight but strong thermoplastic Polypropylene (PP)
- Assembled in 150 mm increments
- Vertical load tested to D 400 (40 tonnes)
- 64mm & 114mm Diameter preformed duct entry points option
- 100% Recyclable

Benefits:

- Easy one way fit and construction
- Lightweight system conforms to HSE recommendations
- Strong twin wall structural design
- Duct entry points easily knocked out with a hammer or cut with holesaw
- Manufactured from a 100% recycled material
- Larger sizes available in 150 mm increments

**Specification Clause:**

The chamber shall be manufactured from virgin polypropylene material and is 100% recyclable. The chamber shall be manufactured of a structural twin wall construction with a nominal overall wall thickness of not less than 50 mm. The chamber sections shall be 150 mm high and positively interlock together with horizontal joints to form a robust unit to the size required on site. Duct entry sections to accommodate up to 114 mm ducting shall be preformed within the manufacturing process. Duct entries of a greater diameter can be cut on site. The chamber shall have the facility of an in built integral cable retention system. The chamber shall be manufactured under an ISO 9001 QMS. The chamber has been vertically load tested to BS EN 124:1994 test load to D 400 (40 tonnes)

DATUM™**Non-Structural Chamber**

Assembled



Assembled with Raiser



Assembled with Cover

DATUM™ chamber systems are manufactured in one piece sections by rotational moulding for strength and rigidity. The system is made up of single stacking sections which can be stacked up to three sections high. Each section has pre-trepanned duct entry profiles for ease of pipe insertion. The chamber sections are manufactured to comply with NJUG guidelines, using 110 mm duct two chambers will give 463 mm depth of cover (typical of footway requirements) and three sections will achieve the required depth for under a road (793 mm). The chamber systems are manufactured in a wide range of sizes and are lightweight, and easy to install.

Features:

- High strength and rigidity
- Tapered interlocking skirt for stacking integrity
- Precision duct entry cut-outs
- Designed to ensure NJUG recommended depths of cover
- Cover and frame height and tilt adjustment
- Corrosion resistant
- Manufactured from 100% recycled and recyclable material

Standard Sizes

Code	Clear Opening (mm)	O/all Dim (mm)	Depth (mm)	Entry Points
MC1*	275 x 295	374 x 394	380	8
MC2	450 x 300	545 x 390	380	10
MC3	450 x 450	550 x 550	380	12
MC4	600 x 450	690 x 545	380	14
MC5	600 x 600	680 x 680	380	16
MC7	900 x 450	1020 x 545	380	18

*Compatible with a UNF/DUNF01 frame

Raiser Units

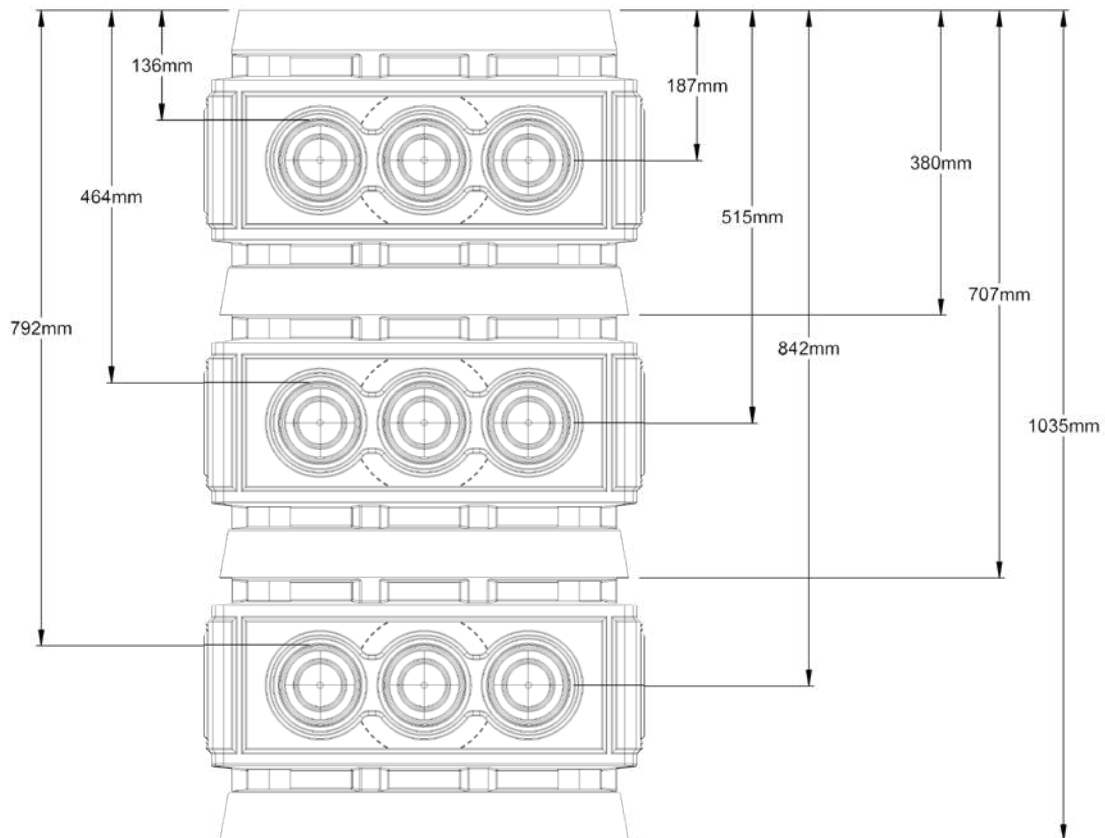
MC2/R	450 x 300	545 x 390	250	-
MC3/R	450 x 450	550 x 550	250	-
MC4/R	600 x 450	690 x 545	250	-
MC5/R	600 x 600	680 x 680	250	-

DATUM™**Non-Structural Chamber****Benefits:**

- Easy one way fit and installation
- Lightweight system conforms to HSE recommendations
- Single wall design
- Duct entry points easily cut with holesaw
- Manufactured from a 100% recycled material
- Composite covers & frames designed to suit

Specification Clause:

Rotationally moulded polyethylene chamber sections shall be of strong and robust construction to prevent distortion during backfill and shall positively interlock with a 50 mm skirt to prevent material ingress and ensure chamber integrity. Chambers shall be pre-trepanned with cut-outs for 63 mm, 100 mm, 110 mm and 178 mm diameter ducting. The cover and frame shall fit positively within the chamber allowing vertical and tilt adjustment to finished level.



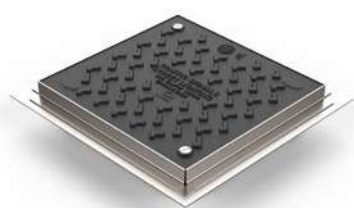


IDS® Access Covers

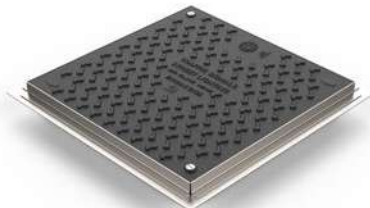


COMPOSITE COVERS

IDS® ELITE



IDS ELITE 3030B



IDS ELITE 4545B



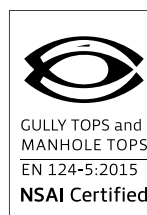
IDS ELITE 4560B

EJ are leading the way with the first, independently certified composite access cover to the EN 124-5:2015 standard. The IDS® ELITE anti-slip composite covers feature a galvanised steel frame and are fully designed and tested to EN 124-5:2015 B125. They are also compatible with both the DATUM™ and NEXUS™ chambers and are badged TRAFFIC SIGNALS and STREET LIGHTING as standard.

The IDS® ELITE range of composite access covers offer exceptional solutions for the most challenging environments. They are corrosion resistant with good ergonomic handling and are a theft deterrent, assuring peace of mind to utility owners and local authorities.

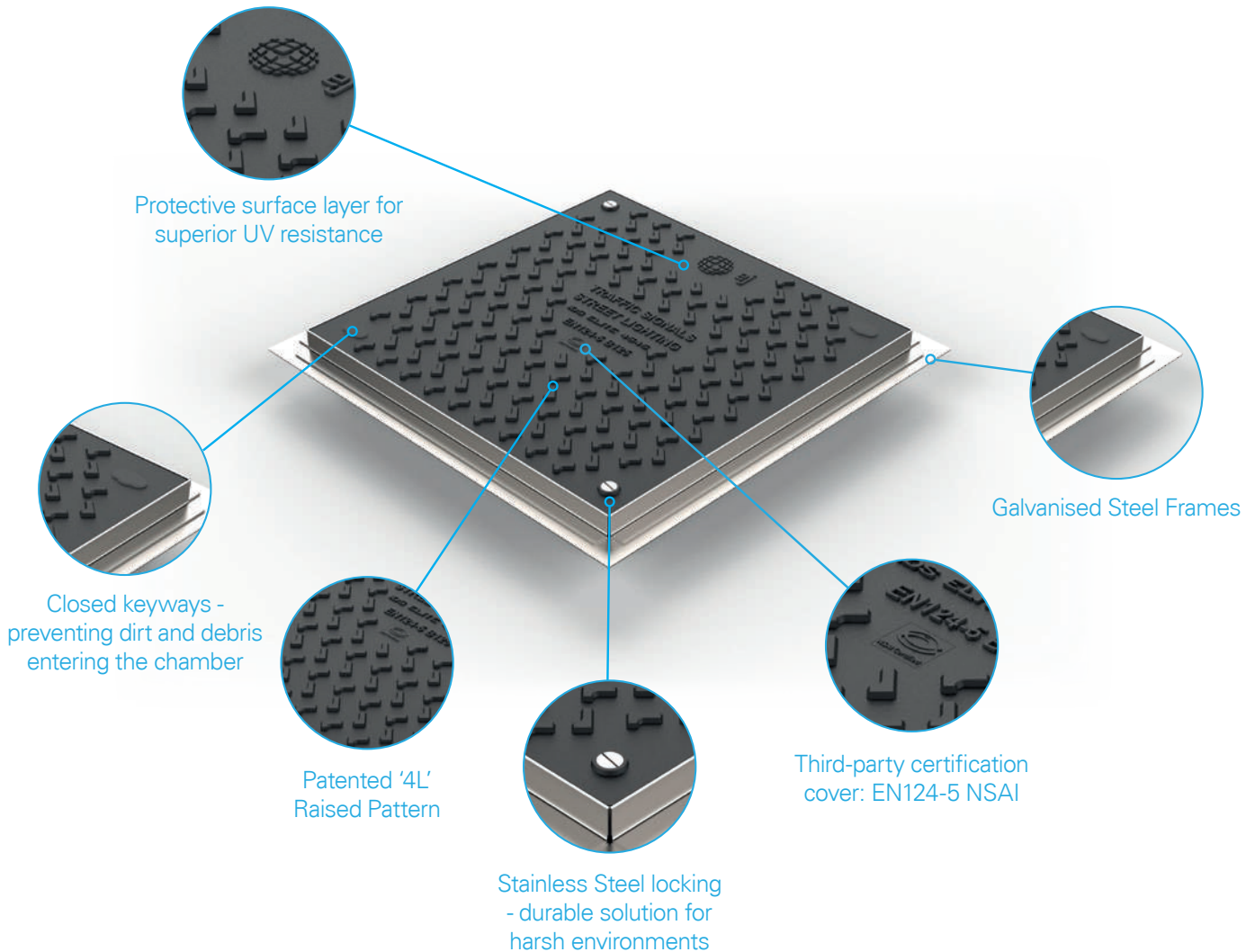
Standard Sizes

Product	Code	Nominal Size (mm)	Description	Covers	Weight (Kg)
IDS ELITE 3030B	CSF3030EN	300 x 300	B 125 Composite Cover & Galvanised Steel Frame	1	6
IDS ELITE 3045B	CSF3045EN	300 x 450	B 125 Composite Cover & Galvanised Steel Frame	1	9
IDS ELITE 4545B	CSF4545EN	450 x 450	B 125 Composite Cover & Galvanised Steel Frame	1	11
IDS ELITE 4560B	CSF4560EN	450 x 600	B 125 Composite Cover & Galvanised Steel Frame	1	13
IDS ELITE 6060B	CSF6060EN	600 x 600	B 125 Composite Cover & Galvanised Steel Frame	1	16
IDS ELITE 9045B	CSF9045EN	900 x 450	B 125 Composite Cover & Galvanised Steel Frame	2	45
IDS ELITE 9060B	CSF9060EN	900 x 600	B 125 Composite Cover & Galvanised Steel Frame	2	53
IDS ELITE 9090B	CSF9090EN	900 x 900	B 125 Composite Cover & Galvanised Steel Frame	4	78
IDS ELITE 12060B	CSF12060EN	1200 x 600	B 125 Composite Cover & Galvanised Steel Frame	2	62
IDS ELITE 12090B	CSF12090EN	1200 x 900	B 125 Composite Cover & Galvanised Steel Frame	4	93



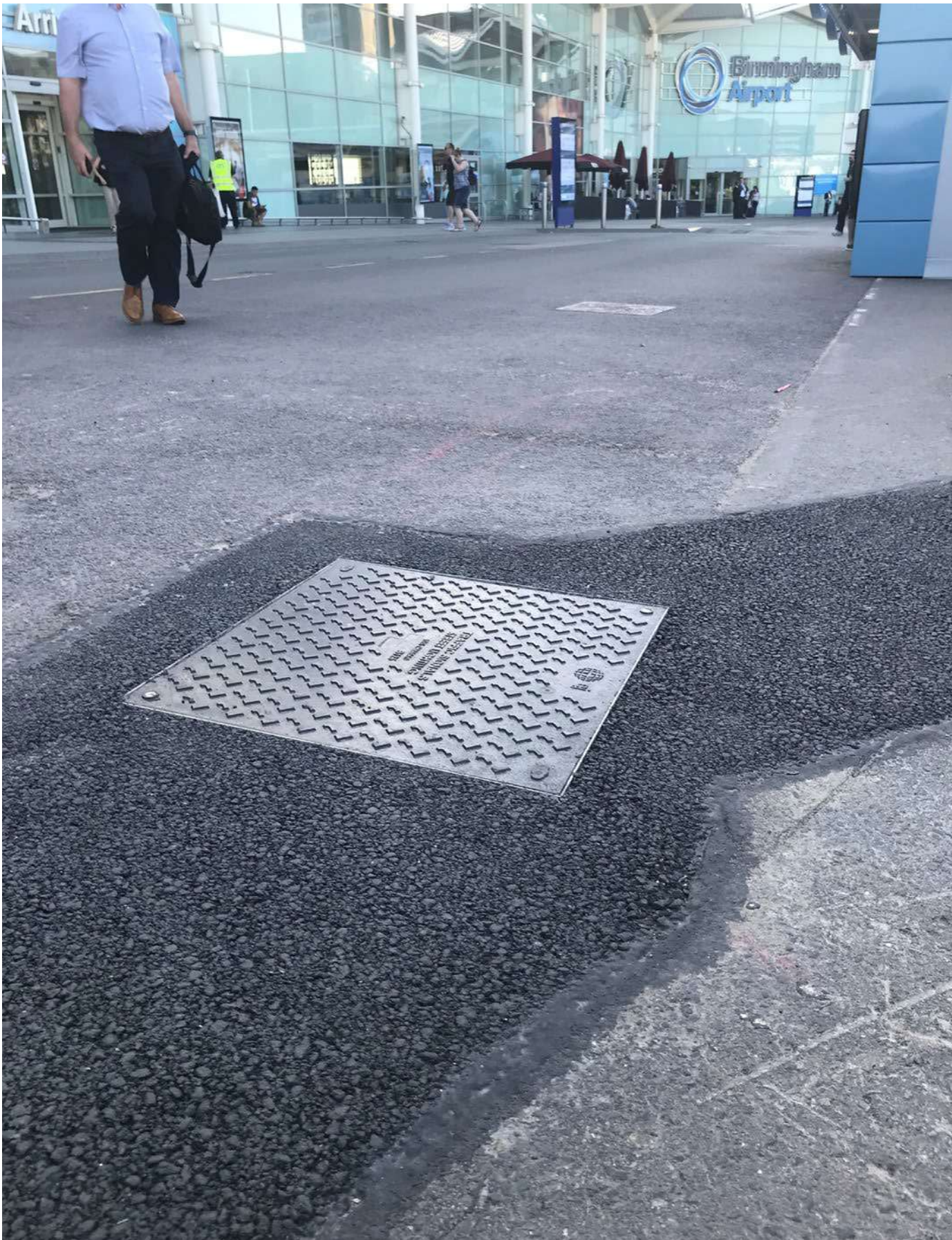
COMPOSITE COVERS**IDS® ELITE**

EN124-5:2015
Fully certified

**Key Features of the IDS® ELITE Range - EN124-5:2015**

- Barcol hardness is >35.
- Water absorption is <0.3%.
- Fuel resistance is <0.5%.
- USRV is >63 - featuring the trademarked 4L non-slip pattern.
- Reduction in tensile modulus is <50% after UV weathering test.
- Will withstand 10,000 fatigue cycles without delaminating.
- Will not crack or delaminate after impacting with 3.75kg striker from 2m height.
- Will hold the test load after conditioning to 150°C for 1 hour.
- Low cover weight, easy to handle and install - 60% lighter than traditional composite covers.

NB. 600 x 600 nominal size cover <10kgs



IDS® SWITCH™ Pole Retention



SWITCH™
Pole Retention System



SWITCH™



SWITCH™ Top



SWITCH™ Duck Foot Bend

SWITCH™ is a unique patented pole retention system which comprises of a high quality casting process and is engineered to securely retain in position all types of passive and non-passive street furniture and posts. The system offers a top housing unit comprising of an integrated levelling system, storage for pavement plug, and Total Grip & Release clamping system. The Switch range has been extensively tested at a UKAS accredited test facility. The flexibility of the Switch range allows for variable heights with minor adjustments available to meet site requirements.

Features:

- Manufactured to suit Ø115 mm pole
- Standard heights of 450 mm, 600 mm, 750 mm, 900 mm
- Pavement plug to be used when no pole is present with top house storage
- 360° swivel duck foot bend
- 20 mm of height adjustment available in sleeve length

Benefits:

- Small Visible footprint
- Integrated levelling system
- Manufactured in grade 500/7 Ductile Iron
- Easy pole removal after knockdown
- Patented clamping system - 780cm² area of grip

Standard Sizes

Code	O/all Height (mm)	Pole Planting Depth (mm)	Pole Diameter (mm)	Weight (kg)
SW115 450	450	335	115	38
SW115 600	600	485	115	39
SW115 750	750	635	115	40
SW115 900	900	785	115	42



Crash Test

Independent testing was carried out at a UKAS accredited test facility. The Switch socket was installed in the ground and a traffic signal post was inserted into the socket, the post was then impacted by a car travelling at 100kph. The damaged post was retained by the socket and was then removed in under 2 minutes with a spanner.

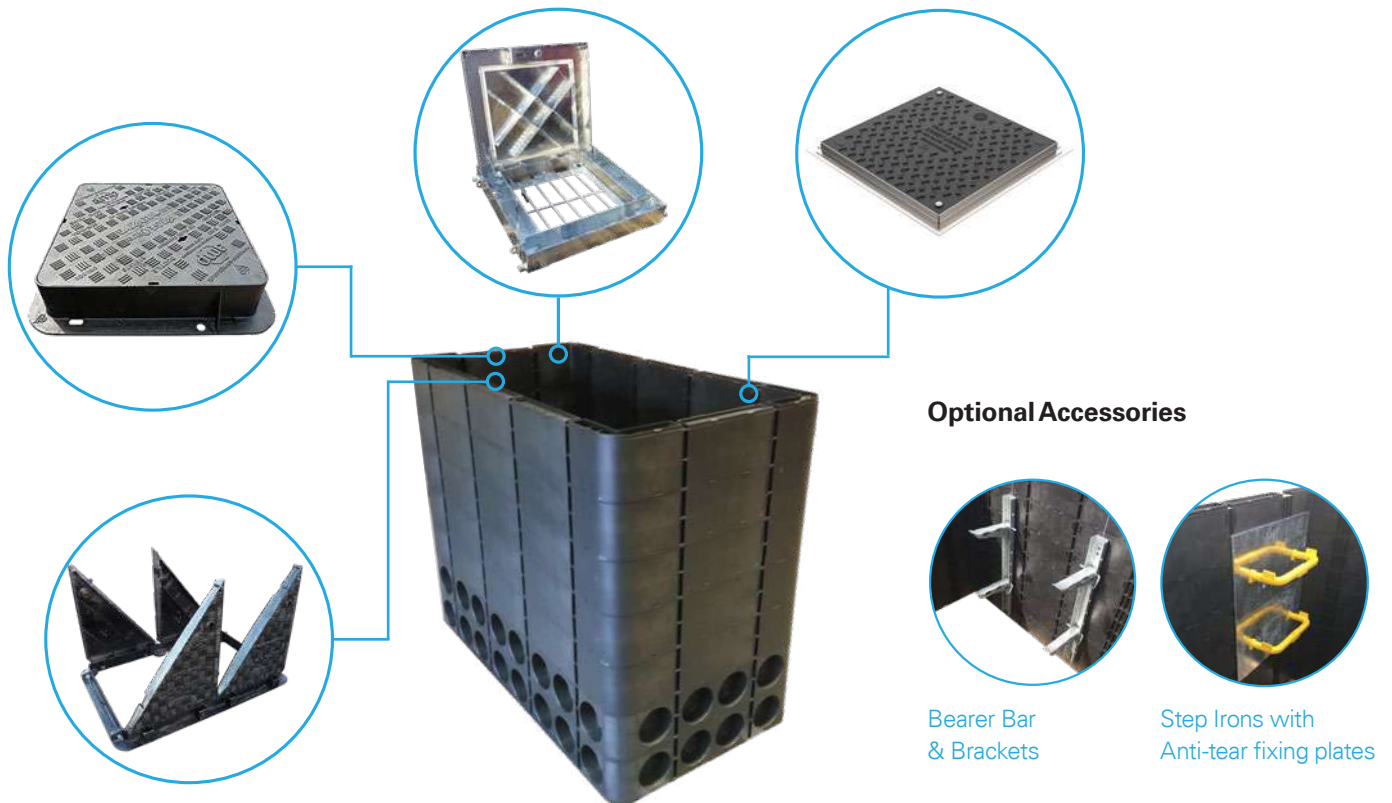
IDS® Opportunities & Other Products



NEXUS™

Multiple Opportunities

The NEXUS™ structural chamber has been designed to work in conjunction with a vast range of access covers and frames. This flexibility allows you to use the NEXUS™ chamber in a variety of applications including, Motorway Communications, Traffic Signals, Street Lighting, Turning Pit applications.



KD1D Loop Box

Features:

- 150 x 150 mm Clear Opening
- 150 mm Deep Frame
- Ductile Iron Grade 500/7
- Grade A to BS 5834 Part 2
- Badged 'TS Loop' as standard
- Slotted frame for cable loop access

IDS® Technical File



NEXUS™

Installation Instructions

Each 150 mm chamber section is pre-assembled prior to delivery to site.

1. Mark out the area sufficiently to allow for back-filling and compaction around the finished chamber. We recommend a minimum of 250 mm around the chamber.
2. Within the marked area, excavate from finished surface level to the total depth of the chamber, allowing additional depth for the base, the bedding mortar and access cover frame.
3. A suitable material base should be laid in preparation for the first ring as below:
 - a. For D400 and above loading applications: 200 mm deep reinforced concrete.
 - b. For lower loading applications: 100 mm of MOT Type 1, fully compacted.
4. After base construction (and allowing for adequate curing time) place the first chamber section ring onto the slab and ensure that the installation is square and level. Haunch the first ring with concrete to a minimum depth of 75 mm. (Ensure that the ring is the right way up)
5. Chamber sections should then be assembled by vertically stacking on top of each other, ensuring each ring is the correct way up and tapped into position using a rubber mallet so that all quick-click locators lock into position.
6. Duct entry section holes may either be core-drilled or knocked out as required up to 114 mm diameter.

Note: If larger entries are required within the chamber, a minimum of 150 mm of concrete should be backfilled around the chamber in these locations in addition to any backfill detailed below.
7. Prior to backfill, all chambers over 600 x 600 mm clear opening should be braced internally using timber or similar material. Please note that such bracing is not supplied with NEXUS™ chamber sections. Ensure that all bracing is of adequate strength to support the sidewalls during backfill and should only be removed once the entire installation is complete and cured.
8. MOT Type 1 should be used for chamber backfill and should be compacted in maximum 250 mm layers. The MOT level should be finished allowing 150 mm depth from the top of the chamber.

DATUM™

Installation Instructions

Excavations

Excavate the installation area to the depth of the chamber plus 40 mm, plus a depth of base. Ensure the base of the excavated area is well compacted granular material of a 100 mm concrete slab. Allow enough room around the chamber for a minimum concrete surround of 100 mm. The concrete should be of sufficient strength to suit the cover and frame loadings and of semi-dry workability. The concrete should be hand placed around the chamber equally on all sides building it up to the required height.

Installation Guidelines

Install the chamber centrally within the excavation. Cut out the duct ports as required and fit ducting into chamber. Ensure the ducting has a minimum 40 mm key within the chamber. When the chamber is located correctly, backfill the void around the chamber with concrete as described above. Ensure backfilling is done around the perimeter of the chamber in equal measures on all sides to prevent movement or distortion. Fill to the height of the top lip of the chamber and concrete in the frame at the appropriate height/angle. It is strongly recommended that the frame is in-situ when installation of the chamber takes place (acts as chamber brace).

Composite Covers

Installation Instructions

Single Span Iron, Composite or Steel Access Covers and Frames

1. Once the chamber sections have been built to the required depth, backfilling using MOT Type 1 stone should be completed according to section 8 on the NEXUS™ installation instructions. The MOT level should be finished allowing 150 mm depth from the top of the chamber.
2. The remaining 150 mm depth should be backfilled with C40 concrete and allowed sufficient cure time to achieve compressive strength.
3. Suitable bedding material (see below) should then be laid onto the top of the chamber ensuring that all voids in the chamber wall are filled with material to provide a solid base.
 - a. For B 125 loading covers, a general purpose bedding mortar such as Ultracrete M60 should be used for securing the frame to the chamber.
 - b. For higher load classes, frames should be bedded onto a high strength, rapid set mortar such as Ultracrete Envirobed or PY4. For traffic applications, frames should then be backfilled with a minimum of 300 mm width of high strength flowable mortar such as Envirobed QC10F.

SWITCH™

Installation Instructions

1. Ensure the top of the socket is at the correct height with the surrounding ground. If installation is being installed on sloping ground please contact sales for assistance.
2. Connect ducting from the chamber to the duck foot bend of the socket, ensuring you leave the draw cord in the base of the socket bend.
3. If necessary loosen the retaining clamp at the base of the top housing, twist the top housing of the socket into the required orientation then re-tighten the bolts. It is best practice to locate the side of the chamber away from the kerb.
4. Before surrounding with concrete, ensure a drainage pipe is fitted to the underside of the top housing to allow for drainage from the clamping chamber.
5. With the pavement plug in place, surround the socket with the required amount of ST4 concrete. Please refer to the foundation matrix below for concrete surround measurements allowing for 2 layers of A393 mesh reinforcement if the values are **orange**.

	Socket Depth			
	450	600	750	900
Solid Ground Foundation Size (mm)	1005 x 1005	860 x 860	760 x 760	690 x 690
Min distance to edge of concrete plinth (mm)	250	250	250	250
Loose Ground Foundation Size (mm)	1410 x 1410	1205 x 1205	1100 x 1100	1050 x 1050
Min distance to edge of concrete plinth (mm)	250	250	250	250

6. Once sufficient time has taken place for the concrete to cure, finish the surrounding footway to the specified finish.
7. To install the pole, remove the clamping chamber cover and loosen the clamping bolt using a 24 mm spanner, remove the pavement plug and insert the pole until the base of the pole sits on the landing area inside the socket.
8. Tighten the clamping bolt which will clamp the pole in place, once the pole is secure place the pavement plug in the clamping chamber and replace the clamping chamber cover.



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IDS® Access
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