integrated DUCTING SYSTEMS

The latest in

Ducting Systems Development

for traffic signals and cabling works

IDS MK II


traffic signals


passive safety


cctv


motorway services


rail infrastructure


telecomms

cable television


water services


demountable traffic signal pole socket


street lighting

EDITION 8

immediate response - locally ☎ see back cover

Chambers designed with the contractor in mind!

Welcome

Integrated Ducting Systems - IDS represents a significant development in ducting system technology, meeting the requirements of clients, designers and contractors within the civil engineering and construction industries.

IDS is a unique and patented system of polyethylene chambers, pole boxes, ducting, integral frames and covers, providing for the easy access of installation and replacement of buried cables and ducted services. **IDS** is simple to install whilst guaranteeing the integrity of the complete system.

The addition of **IDS**MKII further increases the options of the client/contractor with the use of a chamber which will achieve a C250 loading when installed and backfilled with 10mm compacted clean stone. The elimination of the need for a concrete surround in footways gives the added benefit of less disruption to the existing surroundings and also decreases both inconvenience and working times.

Ducting Systems Development For Traffic Signals & Cabling Works

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IDS Chamber Systems

IDS Chamber Systems are manufactured in one piece by rotational moulding for strength and rigidity. The system is made up of single, double and triple stacking sections with pre-trepanned duct entry profiles that have been created for ease of pipe insertion. IDS Chamber Systems are manufactured in a wide range of sizes, are lightweight and easy to install.

MC3 Chamber with composite cover

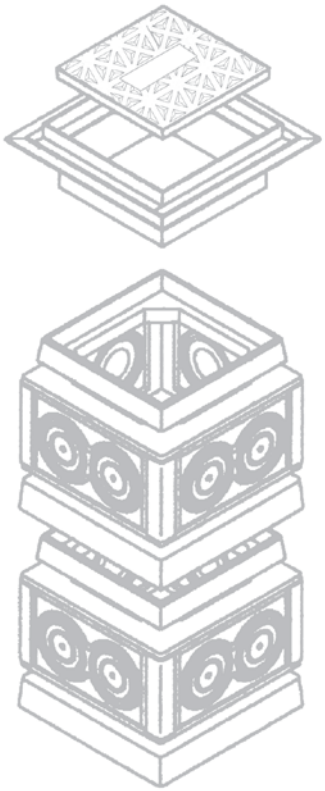
IDS Raising Pieces

IDS Raising Pieces offer unique flexibility within the system providing an effective depth of 200mm.

MC3 with MC3/R

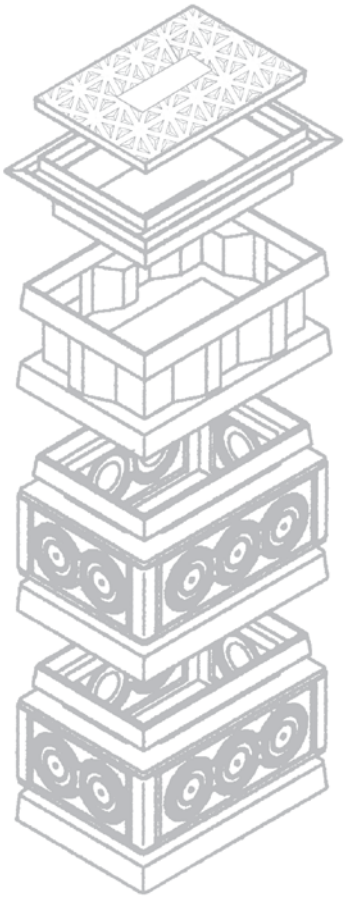
New

NOW ENGINEERED TO ACCEPT UP TO 178mm DUCTING



IDS System MC1

- **Composite cover**
  PGAS300300
- **Frame**
  MK2 DUNF01L (Ductile iron)
- **Chamber**
  MC1
  275 x 295 x 380mm



IDS System MC2

- **Composite cover**
  PGAS300450
- **Frame**
  MK2 DUNF02L (Ductile iron)
- **Raising piece (optional)**
  MC2/R
  300 x 450 x 250mm
- **Chamber**
  MC2
  300 x 450 x 380mm

Benefits of the IDS Chamber System:

- High strength and rigidity
- Tapered interlocking skirt for stacking integrity
- Precision duct entry cut-outs
- Designed to ensure NJUG recommended depths of duct cover
- Raising pieces give extra flexibility to achieve required depths
- Cover and frame height and tilt adjustment
- Corrosion resistant

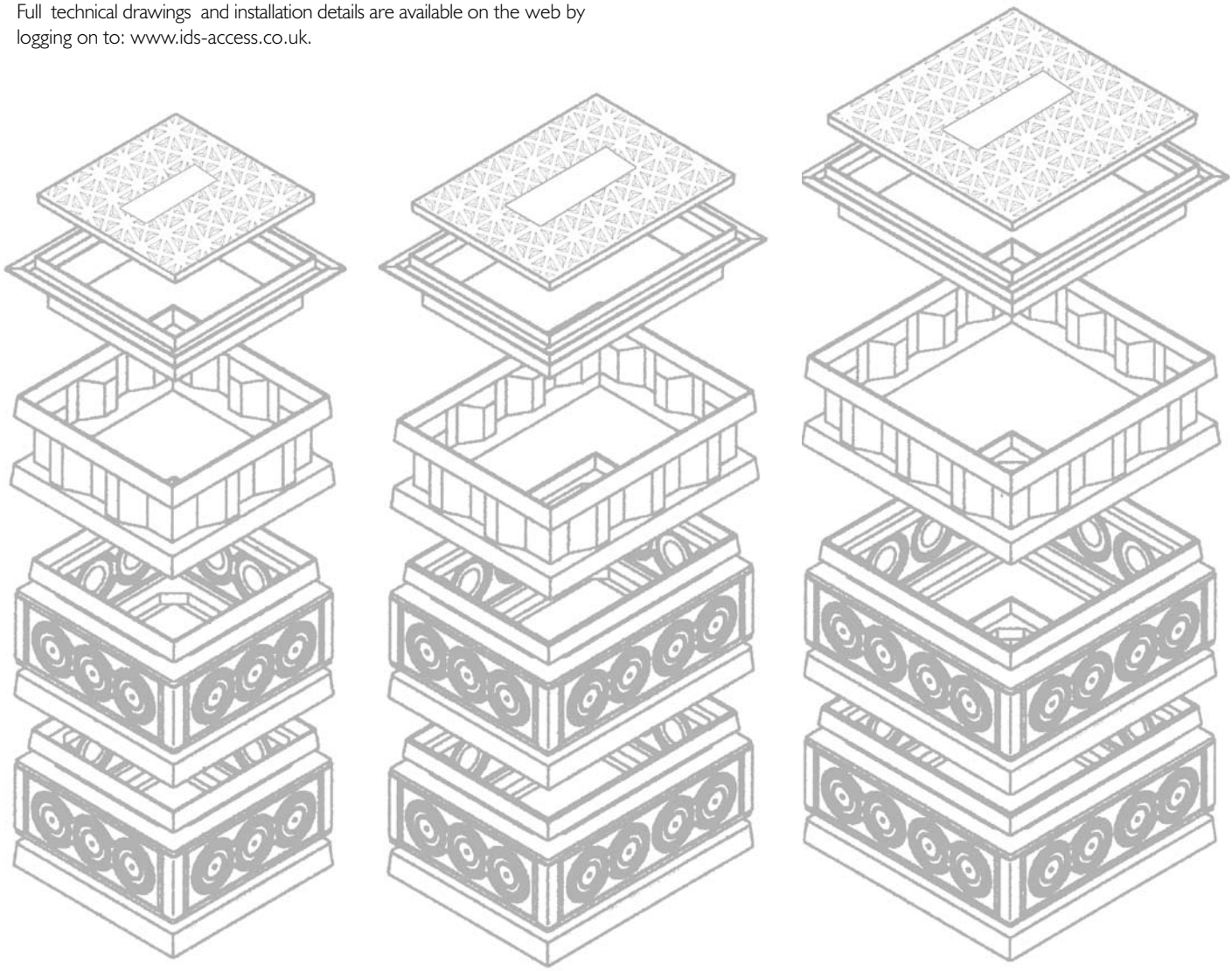
PLEASE NOTE
All **IDS** Chamber Systems are marked with an orientation symbol to aid installation.

Full technical drawings and installation details are available on the web by logging on to: www.ids-access.co.uk.

IDS Chamber 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 50mm skirt to prevent material ingress and ensure chamber integrity.

Chambers shall be pre-trepanned with cut-outs for 63, 100 and 110mm diameter ducting (178mm markings are also indicated on selected chambers). The cover and frame shall fit positively within the chamber allowing vertical and tilt adjustment to finished levels.



IDS System MC3

- Composite cover
  PGAS450450
- Frame
  MK2 DUNF03L (Ductile iron)
- Raising piece (optional)
  MC3/R
  450 x 450 x 250mm
- Chamber
  MC3
  450 x 450 x 380mm

IDS System MC4

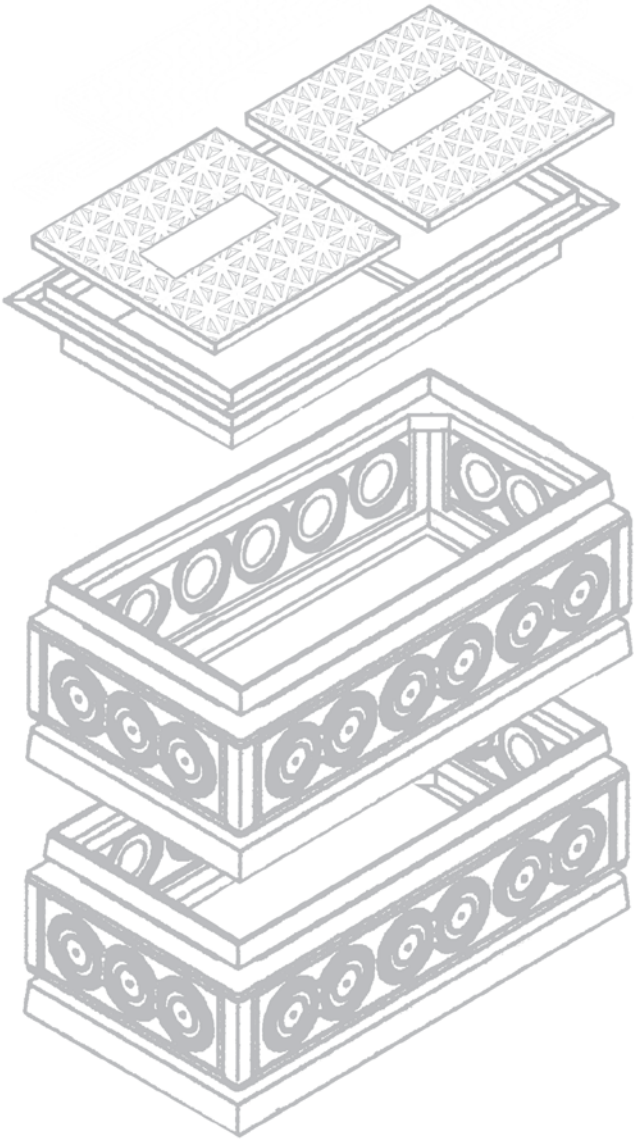
- Composite cover
  PGAS450600
- Frame
  MK2 DUNF04L (Ductile iron)
- Raising piece (optional)
  MC4/R
  450 x 600 x 250mm
- Chamber
  MC4
  450 x 600 x 380mm

IDS System MC5

- Composite cover
  PGAS600600
- Frame
  MK2 DUNF05L (Ductile iron)
- Raising piece (optional)
  MC5/R
  600 x 600 x 250mm
- Chamber
  MC5
  600 x 600 x 380mm

PLEASE NOTE:
System illustrated with universal frame and anti-slip composite cover. For alternative cover and frame options see page 20.

IDS Chamber Systems Continued

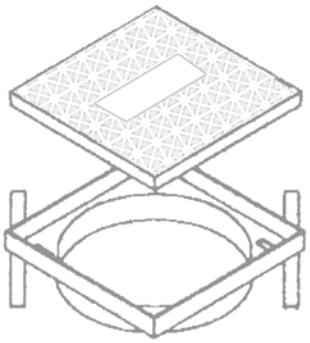


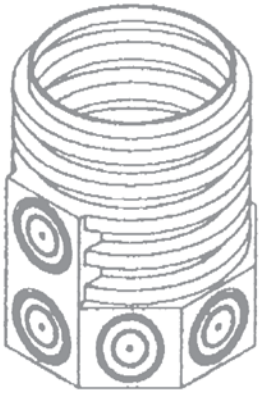
IDS System MC7

- **Composite cover**
  PGAS450450 (x2)
- **Frame**
  UNF09L
  Frame has removable centre bar to give 900 x 450mm clear access
- **Chamber**
  MC7
  900 x 450 x 380mm

IDS System C6

A 300mmØ x 430mm deep utility chamber, ideal for use in areas where existing services prevent the use of chambers to achieve recommended depths. The C6 can be cut down to a minimum depth of 250mm. The 10 port design makes this an ideal 'turning chamber' for a single duct to enter and exit the chamber through any one of 8 directions.





Benefits of IDS System C6:

- Small 10 port hand access turning chamber
- Compatible with common duct sizes 63 - 118mm
- Radially adjustable composite cover and galvanised steel frame
- Flexibility - increase chamber depth using standard 300mm twin wall pipe

IDS Chamber System Installation Instructions

Excavations

Excavate the installation area to the depth of chamber plus 40mm, plus depth of base. Base of excavated area to be well compacted granular material or100mm concrete slab. Allow enough room around the chamber for a minimum concrete surround of 100mm. Concrete should be ST3 and of semi-dry workability.

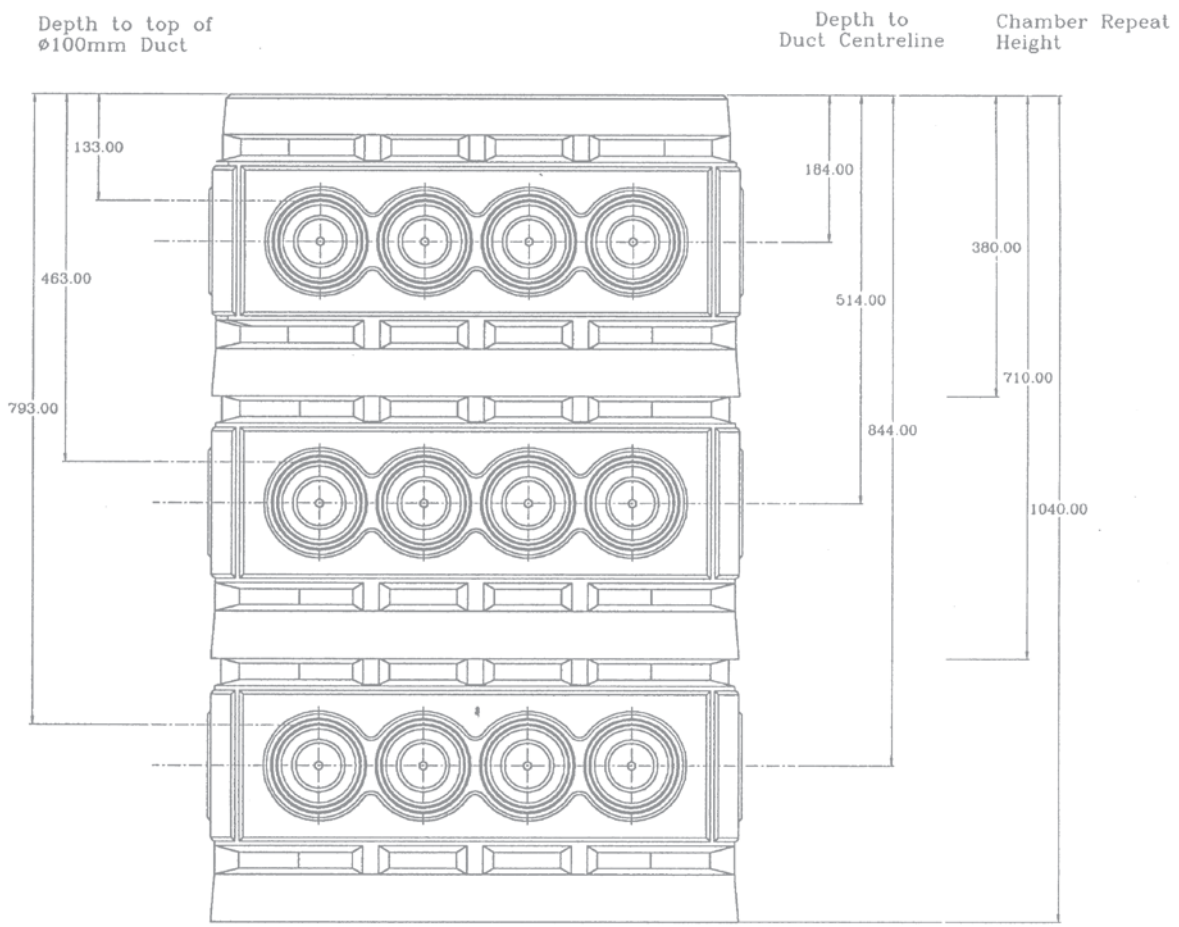
Installation Guidelines

Install chamber centrally within excavation. Cut out duct ports as required and fit ducting into chamber. Ensure the ducting has a minimum 40mm 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 the frame in at the appropriate height/angle. It is strongly recommended that the frame is in-situ when installation of the chambers takes place.

Raising Pieces

Raising pieces obtain their strength from the chamber below and the galvanised steel frame inserted into the recess at the top. It is therefore imperative that both these items are in place for the duration of the installation. Only one raising piece can be used on each chamber.

IDS Chamber Port Depth Detail

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IDSMKII Chamber Systems

IDSMKII is manufactured from polypropylene 20% talc filled. The material is 100% recycled and also 100% recyclable. The material is injection moulded into a ribbed twinwall construction for superior strength while maintaining a profile which allows minimal excavation to take place.

The system is made up of a duct entry section where the duct is inserted into a premoulded entry point which is freed up by the removal of a blanking cap. Where the entry points are not required then the blanking cap is left in situ. The blanking caps are ribbed and unlike other systems on the market the blanking caps are manufactured from the same material as the chamber ensuring no loss of strength at these points.

IDSMKII is manufactured in a range of sizes up to 600mm^2. If larger sized chambers are required then please see our section on large size structural chambers.

Product Codes

The duct entry section is specified as a 3030DE for 300mm^2 and a 6060DE for 600mm^2. The first 4 figures denote the size of the chamber and the DE signifies duct entry section. Similarly the raising pieces operate on the same principle in that a 6060RP denotes a 600mm^2 raising piece.

IDSMKII Chambers For Passive Safety Products

IDS has established itself as a major supplier of chambers for use within the passive safety industry. The IDSMKII chamber is ideally suited for the housing of passively safe disconnection units for all types of passively safe installations.

Why Passively Safe Products?

- Less downtime due to road closure for maintenance
- Helping emergency services by safely isolating power supply
- Reduced risk to pedestrians and road users

Passive Safety Access Chambers From IDS

Where there is a need for a disconnection system look no further than IDSMKII Access Chambers. According to recently published regulations for lighting columns, traffic signals etc involving electrical power, suitable safety measures and equipment need to be installed and IDSMKII chambers provide the ideal solution to house such equipment.

Where a practical method of inspecting the installation and where emergency access is required IDSMKII Access Chambers provide the ideal solution. The twin wall IDSMKII chamber allows for easy mounting of disconnection boards and other electrical isolation systems.

Passive Safety Pole Sockets

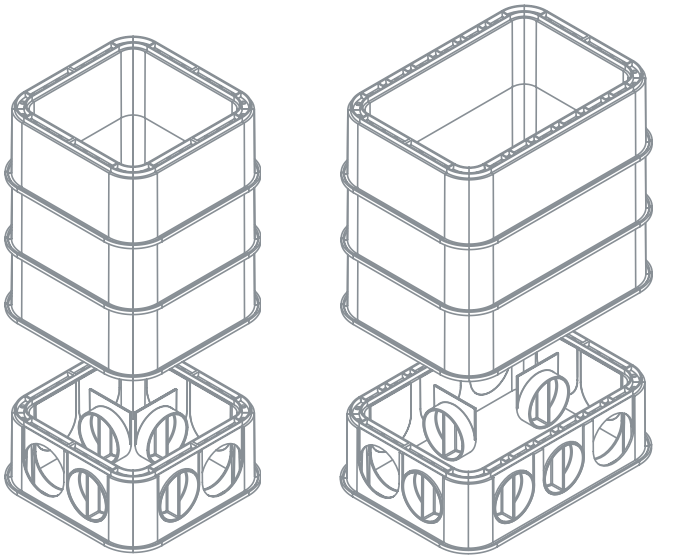
In addition to IDSMKII chambers we are able to offer our IDS traffic signal pole socket. Our IDS pole socket can be used in conjunction with the latest passively safe traffic signal poles and our own chambers.

Specification Clause For IDSMKII Chambers When Used To House Passively Safe Products

The chamber shall be of a modular construction with one piece side walls joined at the corner by a connecting piece.

The sidewall shall be of a uniform strength and thickness to enable the use of self tapping screws to attach disconnection units to the inside of the chamber.

The chamber shall have provision for 110 and 63mm duct to enter/leave the chamber without the need for cutting or drilling the chamber walls.



IDSMKII System

- Composite cover PGAS300300
- Frame MK2 DUNF01L (Ductile iron)
- Chamber base 3030DE
- Raisers 3030RP

IDSMKII System

- Composite cover PGAS300450
- Frame MK2 DUNF02L (Ductile iron)
- Chamber base 3045DE
- Raisers 3045RP

100% RECYCLED & RECYCLABLE

IDS MK II

Depth of Cover

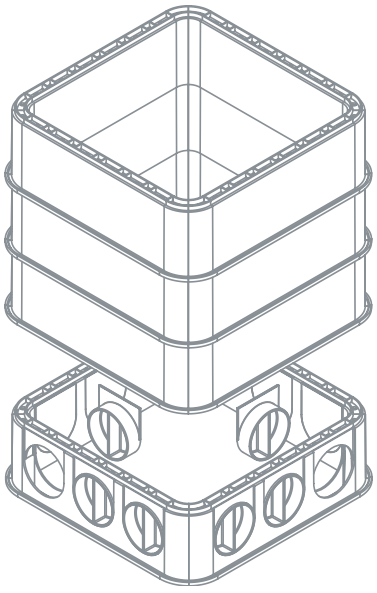
Each section is a nominal 150mm deep, therefore a chamber requiring a minimum 450mm depth of cover would consist of 1 duct entry section plus 3 no raising pieces. 600mm depth of cover would consist of 1 duct entry section plus 4 no raising pieces. 750mm depth of cover would consist of 1 duct entry section plus 5 no raising pieces.

Benefits of the IDSMKII Chamber System:

- Lightweight premoulded modular system
- Achieves C250 loadings without the need for expensive concrete backfill
- No drilling or cutting required for 110mm ducting
- 100% "GREEN"
- Mechanical interlock to ensure stability of chamber within ground

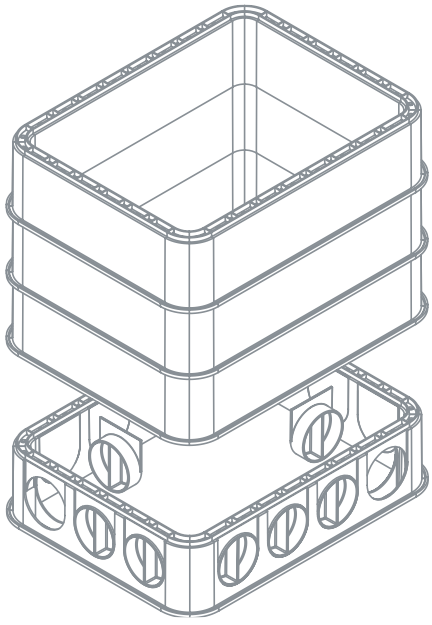
IDSMKII Chamber System Specification Clause

The chambers shall be made of recyclable polypropylene consisting of a twinwall ribbed construction which will comply with the loadings of B125 when installed and backfilled with 10mm clean compacted stone surround. There shall be no drilling or cutting required for insertion of 110mm ducting. The blanking caps shall be made of the same material as the chamber to ensure uniform rigidity and strength. The chamber shall suffer no deformation due to climatic changes between temperatures of –40°c to +100°c.



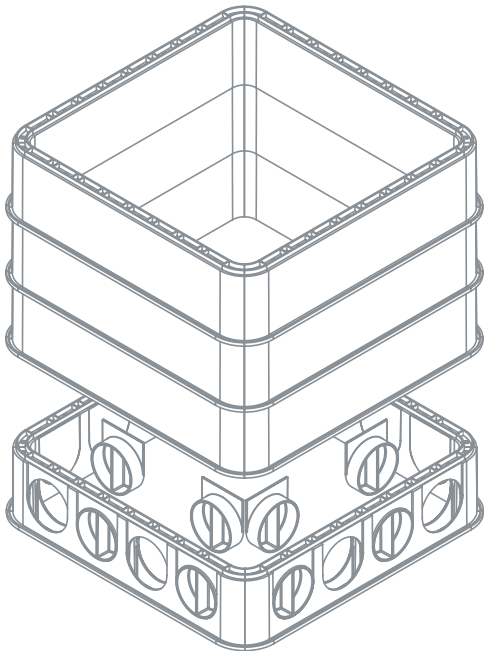
IDSMKII System

- Composite cover PGAS450450
- Frame MK2 DUNF03L (Ductile iron)
- Chamber base 4545DE
- Raisers 4545RP



IDSMKII System

- Composite cover PGAS450600
- Frame MK2 DUNF04L (Ductile iron)
- Chamber base 4560DE
- Raisers 4560RP



IDSMKII System

- Composite cover PGAS600600
- Frame MK2 DUNF05L (Ductile iron)
- Chamber base 6060DE
- Raisers 6060RP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IDS Traffic Signal Pole Socket

Remove a damaged traffic signal pole and re-instate in just **10 minutes!**

The **IDS** Traffic Signal Pole Socket is a simple, yet effective way of installing your traffic signal poles, consisting of a 115mm diameter, cast iron socket and bolt-on top plate with a unique EPDM gasket clamp/seal. The socket offers secure installation of the pole, yet allows for quick removal and re-instatement, should the pole be subject to a slow speed knockdown.

With the duct entry positioned at the bottom of the socket, this allows for cable entry through the centre of the pole, thus allowing the pole and signal head to be configured in any direction.

The relatively small, round, top plate also offers a smaller 'footprint', so making the socket, more aesthetically pleasing at finished pavement level.

This unique design also makes the pole socket suitable for roads that are designated as wide load routes, where poles need to be removed and re-instated, quickly and often

- **Cover Plate**
- **EPDM Gasket**
- **Cast iron collar with fixing points for x4 bolts**
- **Cast iron pole socket**
- **Duct entry point**

IDS would like to acknowledge the help and co-operation provided by Siemens, The Post and Column Company (distributor for Jerol Poles), Atkins and Optima throughout the development of this product.

IDS Traffic Signal Pole Socket

Installation of the socket

1 Excavate area where pole is to be installed.

2 Ensure depth of excavation is sufficient to accommodate pole socket plus extra over for concrete surround. Recommended minimum 150mm concrete surround in all directions from the 115mm diameter pole socket. Minimum grade 30 concrete.

3 Place pole socket in void and set levels to surrounding area.

4 Set pole socket in concrete using stub pole to ensure vertical lines are correct for pole.

5 Install concrete surround ensuring concrete is well compacted.

6 Finish concrete flush with existing levels.

7 Leave to set.

IDS Traffic Signal Pole Socket

- Available in sizes from 450 - 760mm

IDS Traffic Signal Pole Socket

Installation of the signal pole

1 Remove cover plate by unscrewing Allen Key bolts.

2 Remove EPDM gasket from pole socket.

3 Slide cover plate and EPDM gasket over pole.

4 Insert pole into pole socket. Ensure levels are correct and pole is vertical.

5 Ensure gasket is set flush within recess within pole socket.

6 Replace cover plate and tighten bolts to hold pole in place. Bolts should be tightened finger tight then each bolt should be tightened the same amount in rotational order (similar procedure when tightening wheel nuts on a car).

7 Once bolts are tightened check the pole is vertical and is not subject to rotation.

IDS Traffic Signal Pole Socket

Removal after knock down

1 Remove cover plate locking bolts.

4 Lift pole out of socket.

2 Raise cover plate to expose EPDM gasket.

5 Remove gasket and cover plate from pole.

3 If necessary break seal between EPDM gasket and traffic signal pole.

6 Install new pole as described opposite.

MIRA

IDS Traffic Signal Pole Socket Crash Test At MIRA 2008

IDS Traffic Signal Pole Socket

Testing

1 The pole socket was installed in accordance with the manufacturers instructions.

2 Mild steel poles and composite Passive Safety Poles were installed within the socket. Both were subjected to a slow speed impact in order to simulate a traffic knock down situation.

3 The poles were then removed and replaced as per the manufacturers recommendations.

4 The purely civils operation of removing and reinstating the pole was completed within 10 minutes.

IDS Traffic Signal Pole Socket Removal After Crash Test At MIRA 2008

IDS Traffic Signal Pole Socket

Rotational Test

1 An attachment was welded to the top of a steel traffic signal pole.

2 A loading was then applied using a torque wrench.

3 The pole showed no signs of rotating under a load of 400lbsft.

IDS Demountable Pole Chamber System

The IDS Demountable Pole Chamber System has been developed specifically to aid the installation of traffic signal poles and to facilitate the reinstatement of poles without the need for excavation works.

The system allows all civil engineering works to be carried out prior to pole installation, thus improving continuity of operation, reducing labour costs, minimising highway and pavement disruption.

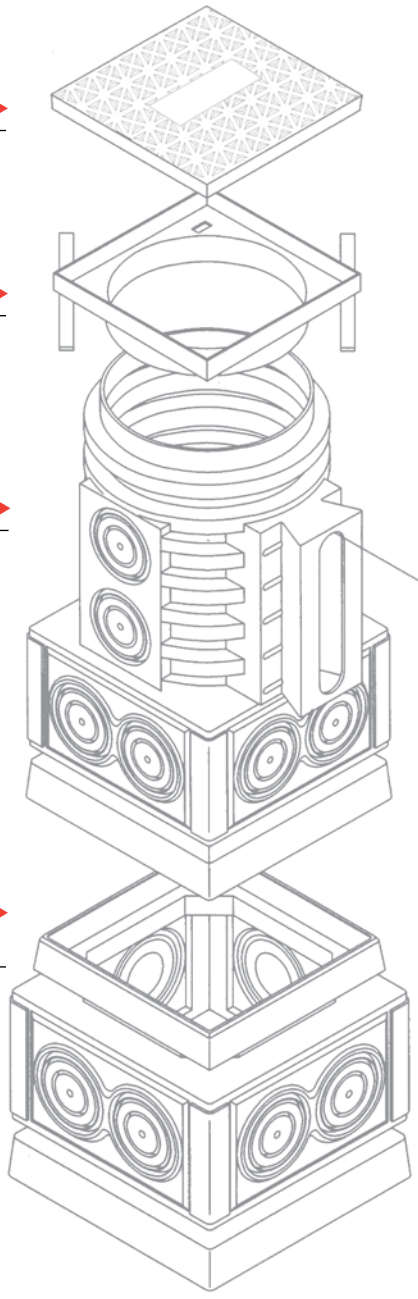
IDS Demountable Pole Chamber System

Cover
PGAS300300 B125

Frame
UNF06TL

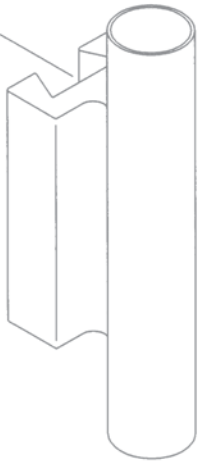
Chamber PCSQ1
300x700mm nom.

Optional Extension Chamber MC1
275 x 295 x 380mm



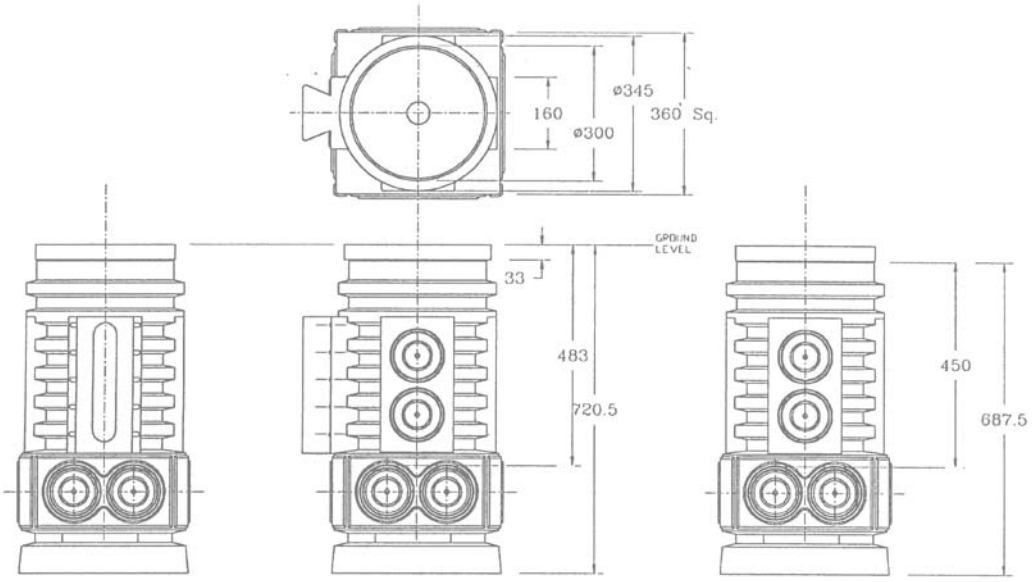
IDS Pole Adaptor

- **P1**
  For 76mm dia. poles
- **P2**
  For 115mm dia. poles
- **P3**
  For 140mm dia. poles

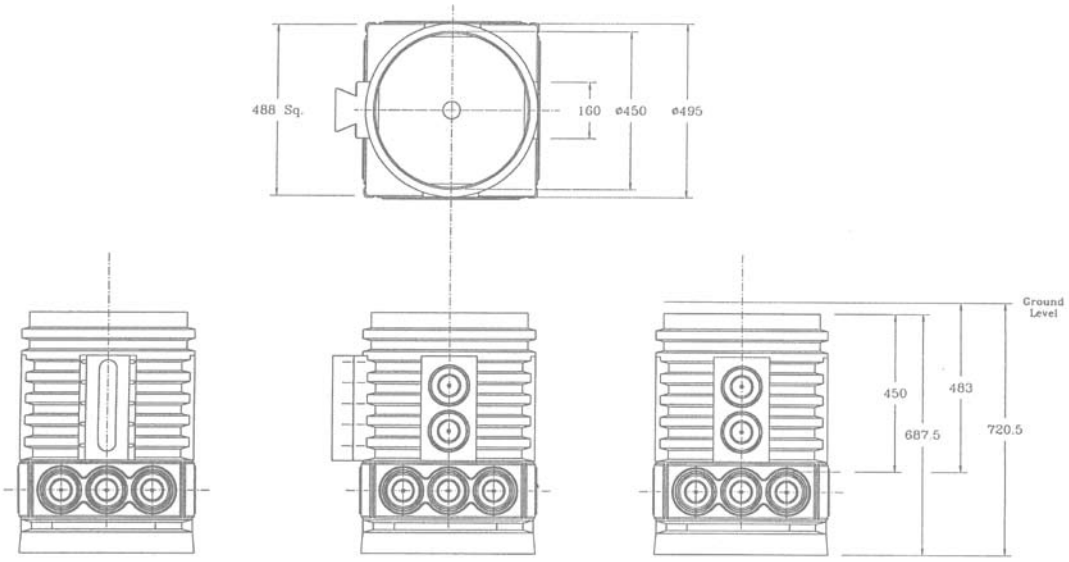


Detail showing Anti-Rotational Bracket on Pole Adaptor

PLEASE NOTE:
System illustrated with universal frame and anti-slip composite cover. For other options see page 20.



IDS 300ø x 700 nom. Chamber PCSQ1



IDS 450ø x 700 nom. Chamber PCSQ2

Installation Guidelines for Pole Chambers and Pole Housings

Install pole chamber or housing within excavated area as for standard chamber sections. Cut out duct entry ports as required and install ducting as described previously. Ensure that the pole chamber/ housing is positioned correctly and that the top of the pole sleeve is level or slightly above the final finish level. Insert the pole, or a stub pole for convenience, and check it is vertical before backfilling around the chamber with concrete. A further check for pole position and sleeve level should be made whilst the concrete is still workable. The universal frame should be in-situ whilst backfill takes place. If the pole is to be fitted later, ensure that the temporary cap is inserted to seal off the pole and sleeve and place the anti-rotational bracket in the chamber for eventual installation by others. If the pole is in place, insert anti-rotational bracket and lock in position.

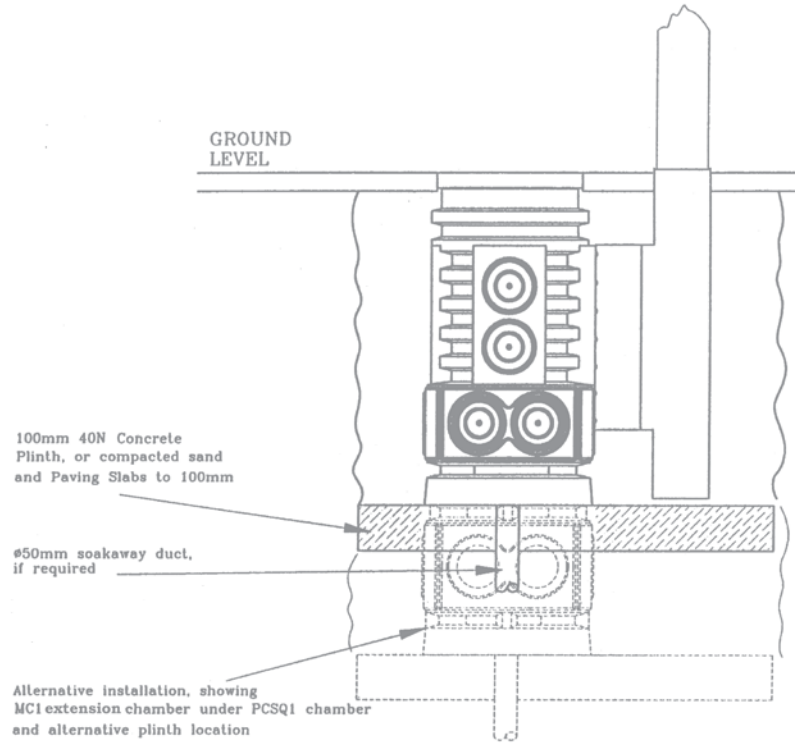
Benefits of the IDS Demountable Pole Chamber System:

- Chambers fully sleeved to allow the completion of all civil engineering works prior to signal pole and cable installation
- Total flexibility in programming pole and cable installation works
- Future pole removal and replacement in minutes without the need for excavation
- Traffic and pavement disruption kept to a minimum
- Incorporates an anti-rotational bracket
- Guaranteed 700mm pole planting depth
- 300mm and 450mm diameter chamber options with 76mm, 115mm and 140mm pole sleeves

IDS Ductile Iron Cable Loop Box

- 150 x 150 clear opening
- 150mm deep frame
- Ductile Iron Grade 500-7 for improved weight to strength ratio
- Grade A to BS 5834 part 2
- Badged TS Loop as standard
- Frame has slots for cable loop access

Installation of IDS Demountable Pole Chamber System PCSQ1



Detail showing chamber in-situ

IDS Pole Chamber and Remote Pole Housing Installation Instructions

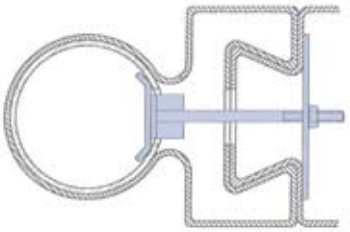
Install pole chamber or housing within excavated area as for standard chamber sections. Cut out duct entry ports as required and install ducting as described previously. Ensure that the pole chamber/ housing is positioned correctly and that the top of the pole sleeve is level or slightly above the final finish level. Insert the pole, or a stub pole for convenience, and check it is vertical before backfilling around the chamber with concrete. A further check for pole position and sleeve level should be made whilst the concrete is still workable. The universal frame should be in-situ whilst backfill takes place. If the pole is to be fitted later, ensure that the temporary cap is inserted to seal off the pole and sleeve and place the anti-rotational bracket in the chamber for eventual installation by others. If the pole is in place, insert anti-rotational bracket and lock in position.

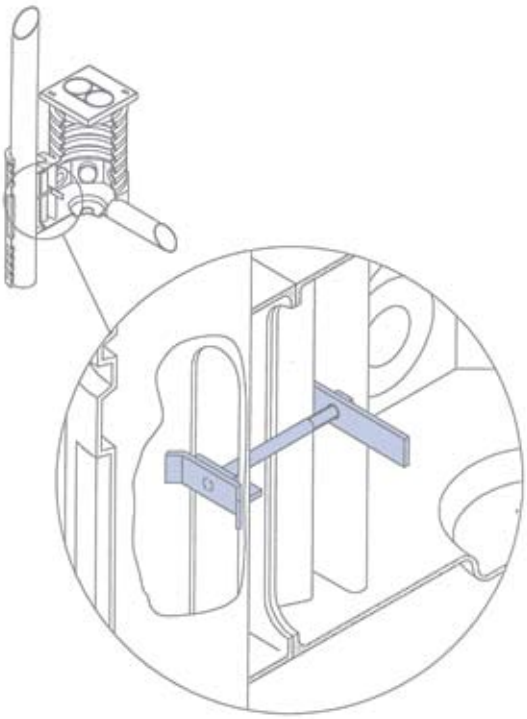
PLEASE NOTE

Full technical drawings and installation details are available on the web by logging on to: www.ids-access.co.uk. If you require further information, please contact the technical enquiry number on the back of this brochure.

Anti-Rotational Bracket

The **IDS** Demountable Pole Chamber System incorporates a unique Anti-Rotational Bracket, eliminating the risk of pole movement.

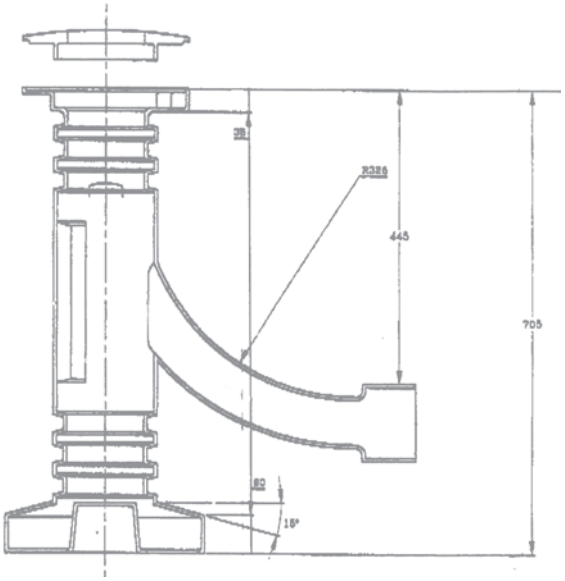




IDS Remote Pole Housing

A fully demountable pole housing for the installation of 115mm diameter traffic signal poles to a remotely located access chamber. Poles can be retrospectively fitted for later removal or replacement requiring no excavation. An anti-rotational clamp and base taper lock ensures secure installation of the pole.

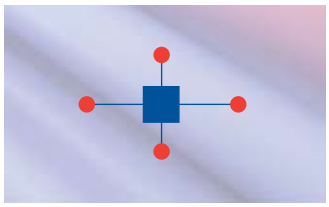
▲ **IDS RPH115 Remote Pole Housing**



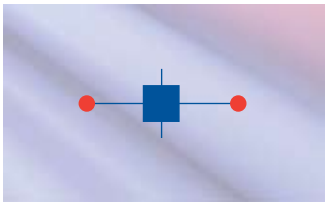
Detail showing Duct Access Socket - will accept 118 or 110mm duct

Detail showing Anti-Rotational Clamp ensuring secure installation of the pole

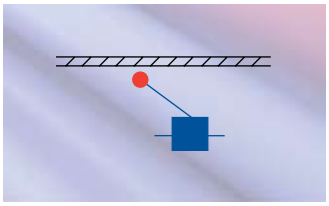
RPH115 Typical Applications



At signalised roundabouts



At pedestrian refuges



At the back of a footpath or adjacent to a boundary wall

IDS Demountable Pole Chamber System Specification Clause

Demountable pole chambers shall be of strong and robust construction, manufactured by rotational moulding techniques in polyethylene. Pole chambers shall allow insertion and rapid removal of 76, 115 or 140mm poles by means of an anti-rotational bracket, accessible from within the chamber. The cover and frame shall fit positively within the chamber allowing rotational alignment with surrounding paving as well as vertical and tilt adjustment to finished levels.


traffic signals


cctv


rail infrastructure

cable television


demountable traffic signal pole socket


passive safety


motorway services

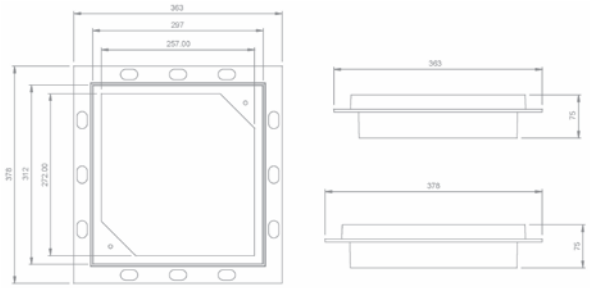

telecomms


water services

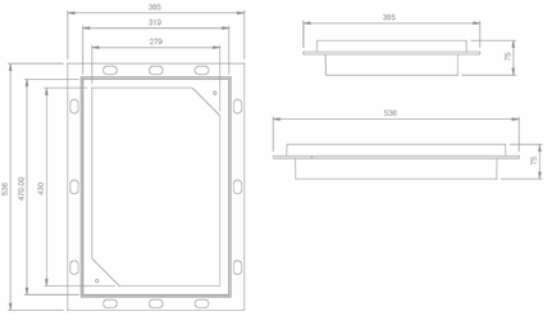

street lighting

Ductile Iron Universal Frame - DUNF

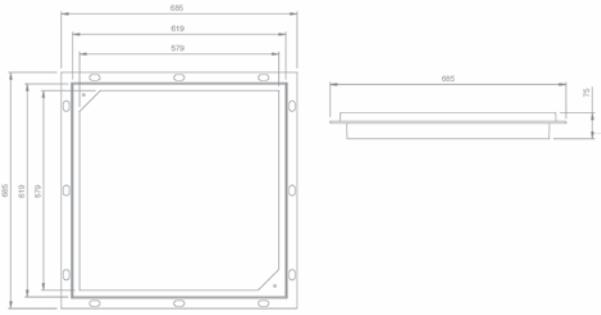
A new development by **IDS** features the introduction of ductile iron frames to our range. Ductile iron is widely used within civil engineering and provides a strong, robust and aesthetically pleasing finish to the chambers. An important feature of this frame is the flange which is specifically engineered to accommodate better adhesion and keying in qualities to the concrete surround. All frames are complete with a locking facility and are clearly marked with the component reference for easy specification and ordering.



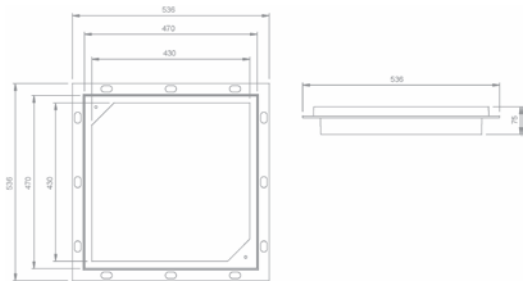
MK2 DUNF/01L 295 x 275mm nom.



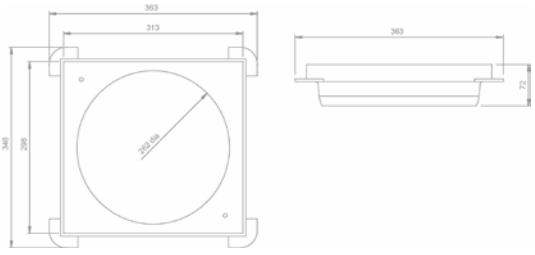
MK2 DUNF/02L 450 x 300mm nom.



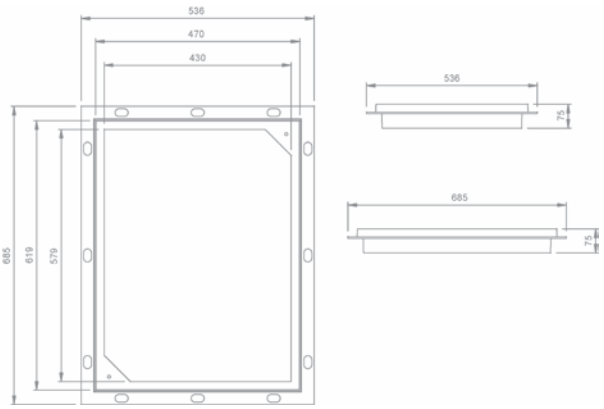
MK2 DUNF/05L 600 x 600mm nom.



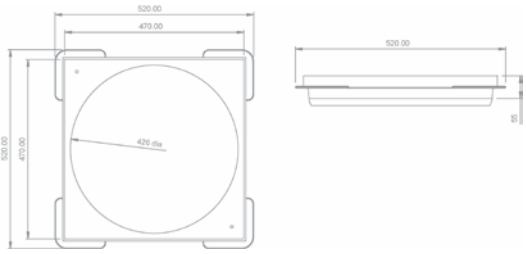
MK2 DUNF/03L 450 x 450mm nom.



MK2 DUNF/06T 300mmØ square to round



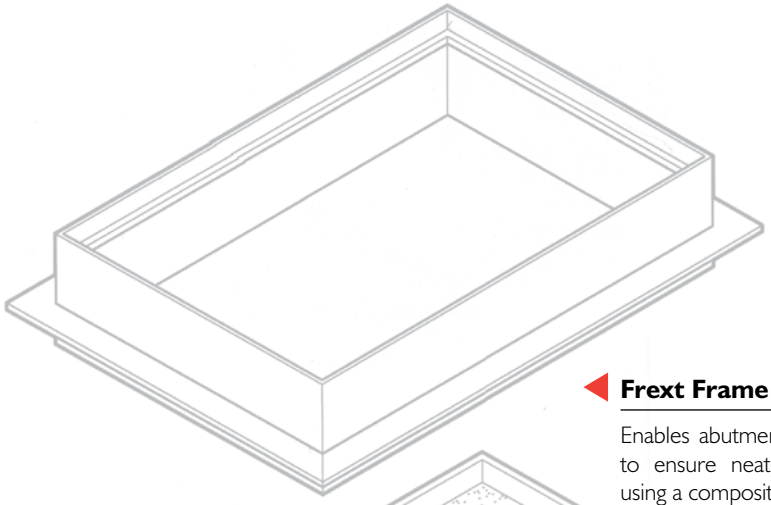
MK2 DUNF/04L 600 x 450mm nom.



MK2 DUNF/07T 450mmØ square to round

Frext and Gasty Pavior Frames

Galvanised steel frames act as formers for the chamber, maintaining the clear opening size specified. The frames provide height and tilt adjustment at surface level. For added security IDS can supply a range of locking frames for installations in areas of block or tactile paving - frames are available with a recessed inner tray and a lowered edge that can be paved up to, avoiding cuts.



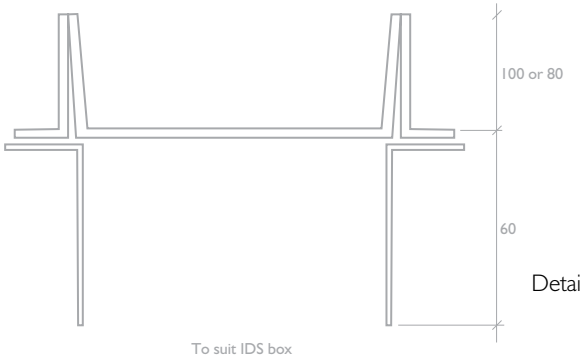
Frext Frame

Enables abutment of block paviors to ensure neat installation when using a composite cover.

Gasty Frame

Enables cover to blend in with block pavior or other existing surrounds.

Detail showing Frext frame



Detail showing Gasty frame

IDS Covers and Frames

The **IDS** system offers universal locking frames with the facility to accept our full range of covers, manufactured in anti-slip composite to B125 loading requirements.

IDS Anti-Slip Composite Covers

The new range of **IDS** anti-slip composite covers provide the highest levels of slip resistance, comfortably exceeding the requirements defined by the UK County Surveyors Society Working Party Data Collection Unit, to ensure pedestrian safety in all situations and weather conditions.

Independent testing by Devon County Council has established the following skid resistance values (SRV) for the tread surface.

Test	SRV
Dry testing (mean value)	87
Wet testing (mean value)	76
Equilibrium value for wet testing	64

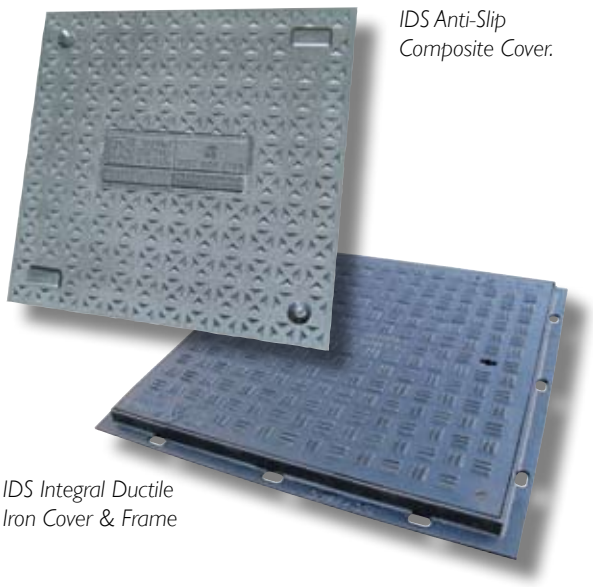
** The equilibrium value is determined when the wet SRVs achieved after repeated 1 minute polishing cycles have stabilised for 3 consecutive results.*

IDS Anti-Slip Composite Cover - B125

Chamber	Nominal size	IDS order ref.	
MC1	300 x 300	PGAS300300	B125
MC2	300 x 450	PGAS300450	B125
MC3	450 x 450	PGAS450450	B125
MC4	450 x 600	PGAS450600	B125
MC5	600 x 600	PGAS600600	B125
C6	300 x 300	PGAS300300	B125
MC7	900 x 450	PGAS450450x2	B125
PCSQ1 (Pole box)	300 x 300	PGAS300300	B125
PCSQ2 (Pole box)	450 x 450	PGAS450450	B125

IDS Anti-Slip Composite Covers Specification Clause

IDS Anti-Slip Composite Covers shall be **IDS** system, manufactured under ISO 9002 approval and to meet the load requirements of EN 124 Class B 125. The surface shall have a mean wet SRV value of not less than 76. Available with security lock down facility. Installed with **IDS** Universal Frame.



IDS Anti-Slip Composite Cover.

IDS Integral Ductile Iron Cover & Frame

Cover and Frame Special Options

- Block pavior infill frames
- Frext frames for block paving surround

See page 19 for further details.

IDS Frext and Gasty Steel Frame Specification Clause

Frext and Gasty frames shall be **IDS** System, manufactured in 3mm steel and hot dipped galvanised to BS 729. The frame locates inside the chamber and can be adjusted for both height and tilt to finished levels.

Ductile Iron Frames for Locking & Non-Locking Covers

Chamber	Nominal size	IDS order ref.
MC1	300 x 300	DUNF/01L
MC2	300 x 450	DUNF/02L
MC3	450 x 450	DUNF/03L
MC4	450 x 600	DUNF/04L
MC5	600 x 600	DUNF/05L
C6	300 dia.	DUNF/06LT
PCSQ1 (Pole box)	300 dia.	DUNF/06LT
PCSQ2 (Pole box)	450 dia.	DUNF/07LT

Ductile Iron Frame Specification Clause

Frames shall be **IDS** system manufactured under ISO 9002 approval and shall meet the load requirements of B125. Manufactured from ductile iron and installed in conjunction with **IDS** installation instructions. The frame, which has a locking facility, locates inside the chamber and can be adjusted for both height and tilt to finished levels.

IDS Integral Ductile Iron Covers & Frames

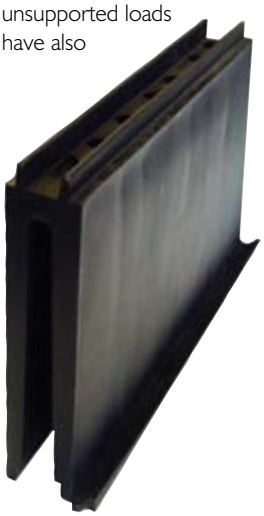
Code	Description
IDS-B01	IDS B125 Ductile iron cover & frame 300x300 nom
IDS-B02	IDS B125 Ductile iron cover & frame 300x450 nom
IDS-B03	IDS B125 Ductile iron cover & frame 450x450 nom
IDS-B04	IDS B125 Ductile iron cover & frame 450x600 nom
IDS-B05	IDS B125 Ductile iron cover & frame 600x600 nom
IDS-B06T	IDS B125 Ductile iron cover & frame 300MM DIA
IDS-B07T	IDS B125 Ductile iron cover & frame 450MM DIA
IDS-C01	IDS C250 Ductile iron cover & frame 300x300 nom
IDS-C02	IDS C250 Ductile iron cover & frame 300x450 nom
IDS-C03	IDS C250 Ductile iron cover & frame 450x450 nom
IDS-C04	IDS C250 Ductile iron cover & frame 450x600 nom
IDS-C05	IDS C250 Ductile iron cover & frame 600x600 nom
IDS-C06T	IDS C250 Ductile iron cover & frame 300MM DIA
IDS-C07T	IDS C250 Ductile iron cover & frame 450MM DIA

IDS Medium Duty Structural Chambers

To complement the **IDS** range of polyethylene chambers, pole boxes and ducting, **IDS** can now offer a range of pre-formed Medium Duty Structural Chambers and vaults for network, duct and equipment access. The **IDS** Medium Duty Structural Chamber range provides operators with the means to construct chambers quickly and inexpensively without having to compromise on build quality.

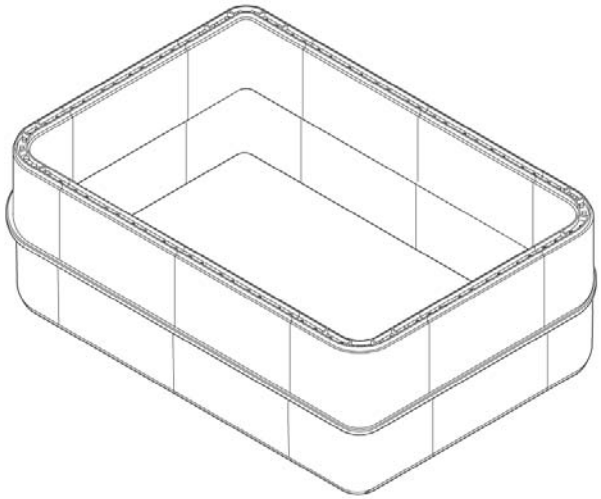
The unique design of the **IDS** Medium Duty Structural Chamber range offers operators and contractors alike a huge range of clear opening and depth combinations. The Medium Duty Structural Chamber range consists of 150mm deep ring sections which are stacked on top of each other to form chambers of varying depth. Each ring in turn is made of twin walls with vertical ribs spanning between the walls.

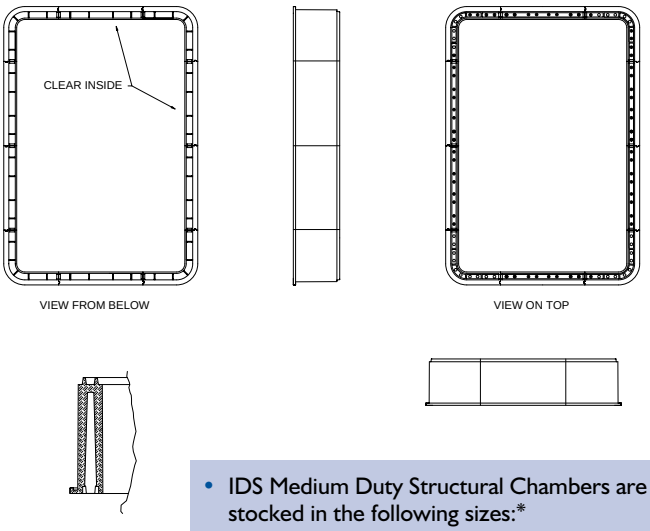
This patented twin wall technology provides the Medium Duty Structural Chamber range with its inherent strength - strength that has been independently tested to withstand vertical unsupported loads in excess of fifty tonnes. Vertical load tests have also been applied on a cyclic basis in order to simulate the effect of trafficking. Under this first test, the chamber withstood 40 tonnes vertical load at the rate of one cycle per second for over 86,000 cycles within a 24 hour period. Strength that means unlike other pre-formed chambers which only serve as formers for concrete, the **IDS** Medium Duty Structural Chamber range does not require any expensive structural backfill.



*Section of **IDS** Medium Duty Structural Chamber*

IDS Medium Duty Structural Chamber





- **IDS Medium Duty Structural Chambers are stocked in the following sizes:***

  750 x 600mm, 750 x 750mm, 900 x 600mm
  900 x 900mm, 1200 x 600mm, 1200 x 900mm
  1200 x 1200mm, 1200 x 750mm

*For additional sizes please contact your local Burdens branch (see back cover).

integrated DUCTING SYSTEMS


traffic signals


cctv


rail infrastructure

cable television


demountable traffic signal pole socket


passive safety


motorway services


telecomms


water services


street lighting

IDS Medium Duty Structural Chambers - adaptability without compromise

The design features incorporated into all **IDS** systems are the result of extensive field research, finite computer analysis, prototyping and now meet the high standards required by both Utility operators and Contractors alike. Only with the **IDS** system do you get a truly full alternative to the traditional methods of concrete and brick. In addition to meeting the proven strengths of traditional methods, **IDS** Medium Duty Structural Chambers do not suffer from their disadvantages, but also offer improved speed of build and quality of finish coupled to longevity of working life.

Benefits of IDS Structural Chambers:

- **Ease of installation**
  Low weight makes handling easier which coupled with simple duct entry improves installation time (20-30 minutes).
- **Strength**
  The chamber is not a liner (unlike other plastic chambers).
- **Economy**
  Low material costs which when coupled with the reduction of labour costs for installation, provides constructors and operators with a very economical means of building chambers.
- **Low life costs**
  Unlike concrete, the **IDS** system will not crumble or be affected by water, acids, frost or chemicals. Furthermore it is a consistently factory produced item, unlike site cast concrete chambers.
- **Sectional**
  Offers flexibility of sizes and depth and sections are castellated to interlock.

If you are specifying an access chamber or manhole, ask yourself the following questions.

	Existing System	IDS Range
• Does your choice meet vertical loadings without the need for support material, including weights up to 25 tonnes?	☐	☑
• Does it come in all the sizes that you require?	☐	☑
• Does it take 30 minutes to install?	☐	☑
• Can it be easily accommodated around obstructions in the ground without loss of strength?	☐	☑
• Will it still be functioning long after you are gone, surviving attacks from frost, fire, acids and alkalis?	☐	☑
• Has it got a pedigree of over 40,000 chambers installed with the first units dating back nearly 10 years?	☐	☑

If the answer is **yes** then it's **IDS**

IDS Medium Duty Structural Chambers - installation procedure


Excavate area for pit to be situated.


Ensure bottom of pit is level to allow base to sit correctly. Base should be compacted 10mm clean stone or lean mix concrete.


Lower chamber base into void and position as required.


Place wall section on base section.


Ensure chamber is square and wall section is flush on base section.


Place bracing inside of chamber.


Place concrete or backfill around outside of chamber.


Ensure backfill is well compacted or concrete is tamped.


Fit next wall section.


Ensure sections are fully interlocked.


Make sure the chamber surround is well compacted.


Place concrete surround around top of chamber.


Site frame on to chamber/ concrete surround.


Adjust frame to level required.


Haunch frame for permanent set. Job done.

IDS Heavy Duty Structural Chambers

The range of **IDS** Heavy Duty Structural Chambers is a highly successful family of pre-formed chambers and vaults for network duct access. The **IDS** range provides operators with a means of constructing chambers quickly and inexpensively without having to compromise on build quality.

The **IDS** range of Heavy Duty Structural Chambers is unsurpassed in terms of its strength to weight ratios. This is due to the material we use to mould the product - a glass reinforced polyester resin which is used in many industries including automotive, aeromotive and construction to provide engineers with high strength in areas where finished product weight needs to be as low as possible.

Furthermore the material is thermoset, which means it cannot melt and has a high degree of resistance to fire. Operating temperature range is greater and more stable than thermoplastic materials such as HDPEs and PPs used in other chambers and vaults.

Through the combination of material and twin wall technology, each unit is capable of unsupported vertical loadings in excess of 40 tonnes and side wall loads comparable to those of concrete.

Benefits of IDS Heavy Duty Structural Chambers:

- **Very strong**
  The chamber is not linear, unlike other 'plastic' chambers and will take required loading immediately after being installed.
- **Low life costs**
  Due to the material and design, the IDS system has a longer life than other 'plastic' chambers. Furthermore the IDS Heavy Duty Structural Chamber will not crumble like concrete and is a consistent factory produced item, unlike site cast concrete chambers.
- **Ease of installation**
  Low weight leads to ease of handling, which coupled with simple duct entry and furniture fitting leads to a 30 minute install time.
- **Access**
  The combination of straight, vertical internal walls and strengthening ribs hidden between them means cable access is unhindered.

IDS Heavy Duty Structural Chamber fittings and accessories:

- **Covers and frames**
  We offer a range of loading options and material types to suit operator requirements.
- **Duct entries**
  Can be made using pre-formed fittings from our range of multi-duct size bell mouth entries, otherwise duct entry holes can be cut to order.
- **Base units**
  Provide a quick, solid base with pre-made drainage.

Highways Agency Concrete Duct Cable Chambers

IDS precast concrete units provide the ideal method of constructing draw pit chambers both rapidly and economically.

Designed to comply with Highways Agency specifications for cable chambers, our chambers are manufactured to the highest standard and are virtually maintenance free.

Type A - 1300 x 850mm

Available in 750mm or 250mm deep sections and can be supplied with 20 no. 119mm duct entries. Base units and closer slabs are available to suit.

IDS Type A Concrete Duct Cable Chamber

Type B - 600 x 600 x 850mm

Our Type B chamber has been designed to achieve the required (600mm) depth of cover without additional rising sections.

Units have fourteen 119mm (i.d.) ABS plastic duct sleeves 'cast in'.

There is a base unit available to suit.

Type C - 600 x 450 x 500mm

Put an end to the logistical nightmare of small batches of ready mixed concrete and expensive formwork.

Installation costs can be dramatically reduced with the IDS Type C chamber as this unit does not require a concrete surround.

With a 75mm wall, the cover and frame sits directly onto the unit maintaining the load value.

Concrete sections are structurally stable and do not suffer the distortion during the backfilling process, which is often associated with chambers of this size.

There is a base unit available to suit.

IDS Type B Concrete Duct Cable Chamber

Manufacture and design detail

- Complies with H.A. drawing detail MCX0815.
- Aggregates to BS EN 12620.
- Cement to BS EN 197-1. Minimum content 400kg/m^3.
- Grade C50 mix design.
- Manufactured to meet Design Chemical Class 4, as defined in BRE Special Digest 1 'Concrete in aggressive ground' Part 4: Design guides for specific precast products.
- Cast-in plastic encapsulated steps to BS1247.
- Pre-coated with two coats of black bitumen available on request - special order.
- Wall units contain handling reinforcement.
- Cover slabs designed to Highway Loading BS5911 pt. 200.
- Base unit to H.A. specifications.
- Concrete backfilling unnecessary in normal use.

Draw Cords

- Specification
  6mm diameter x 220m
  6mm diameter x 500m

Duct Spacers

- Diameter
  110mm, 118mm O.D.
- Specification
  Available in 2, 4 or 6 way versions

Underground Warning Tape

The most economical way of warning excavators of buried services below ground. The tapes can be printed with any text in any language, colour or size. The following standard texts are available.

Text	Colour	Size	Reference
CAUTION - ELECTRIC CABLE BELOW	Yellow	150mm x 0.1mm x 365m	A0101010CAA
CAUTION - STREET LIGHTING CABLE BELOW	Yellow	150mm x 0.1mm x 365m	A0101030CAA
CAUTION - STREET LIGHTING CABLE BELOW	Purple	150mm x 0.1mm x 365m	A1401030CAA
CAUTION - FIBRE OPTIC CABLE BELOW	Green	150mm x 0.1mm x 365m	A0401200CAA
CAUTION - TELEPHONE CABLE BELOW	Green	150mm x 0.1mm x 365m	A0401134CAA
CAUTION - TRAFFIC SIGNAL CABLE BELOW	Orange	150mm x 0.1mm x 365m	A0701196CAA
CAUTION - CCTV CABLE BELOW	Green	150mm x 0.1mm x 365m	A0401864CAA

General Purpose Twin Wall

Twin wall corrugated duct in 6 metre lengths.

O.D.	I.D.	Length	Ref.	E.N.	BBA
110mm	94mm	6m	GPT94	•	-
178mm	150mm	6m	GPT160	•	-

Flexible Twin Wall Ridgicoil

Flexible coiled twin wall duct.

O.D.	I.D.	Length	Ref.	E.N.	BBA
110mm	94mm	50m coil	RC11050	•	•
63mm	50mm	50m coil	RC6350	•	•

- Colours
  Orange, black, purple, yellow, blue

  Supplied complete with factory fitted draw string

Solid Wall Polyethylene

Solid wall polyethylene ducting in straight lengths or coils.

O.D.	Wall thickness	Length	Ref.	E.N.
107mm	5.0mm	6m	PD018X6	•
107mm	3.5mm	6m	PD018AX6	
63mm	5.0mm	50m coils	PD007X50	•
63mm	5.0mm	6m	PD007X6	•
63mm	3.5mm	50m coils	PD005DX50	
63mm	3.5mm	6m	PD005DX6	
60mm	5.0mm	50m coils	PD004X50	•
60mm	5.0mm	6m	PD004X6	•

- Colours
  Orange, black, brown, purple
- Couplings
  Each length or coil includes 1x coupling

PLEASE NOTE: Specify marking: Street Lighting/Traffic Signal

IDS Ducting Specification Clauses

POLYDUCT

Polyduct Single Wall, smooth bore polyethylene ducting. Ducts to be marked 'Traffic Signals' or 'Street Lighting' (delete as required). Specify colour. Supplied in 6m lengths or 50m/100m coils. State if compliance with BS EN 50086-2-4 is required.

TWIN WALL DUCTING

Twin Wall corrugated outer wall, smooth inner bore ducts. Ducts to be marked 'Traffic Signals' or 'Street Lighting' (delete as required). Specify colour. Supplied in 6m lengths or 50m coils with fitted coupling. State if BBA certified IDS Twin Wall Ridgiduct meeting the requirements of BS EN 50086-2-4.

GP TWIN WALL

Supplied in 6m lengths or 50m coils. Smooth inner wall and corrugated outer wall provides a combination of strength with flexibility. Each length is supplied with a fitted coupling. Marked with 'Street Lighting' or 'Traffic Signals'.

DUCT SPACERS

Specify 2, 4, or 6 way pattern. Larger patterns can be assembled on site. Specify either for 110mm or 118mm outside diameter.

DRAW CORD

Draw cord 6mm diameter blue polypropylene cord. Breaking strength of 5kN. Supplied in 220m rolls or 500m drums.

Case Studies

Traffic Signals

IDS is approved for use by local authorities nationwide and has been specified extensively in numerous traffic signal situations, from major motorway junctions to high street pedestrian crossings. The IDS Demountable Pole Chamber System has been developed specifically to aid the installation of traffic signal poles and to facilitate the reinstatement of poles without the need for excavation works.

The system allows all civil engineering works to be carried out prior to pole installation, thus improving continuity of operation, reducing labour costs, minimising highway and pavement disruption.

CCTV Installations

IDS is also used for access to ducting in town and city centre CCTV installations. Estate security monitoring and commercial property surveillance offer further scope for this robust product.

Retail/Business Parks

IDS has been used extensively in both retail and commercial developments throughout the country. Applications range from private CCTV, security communications and car park lighting to specialised computer cables running through the system.

Rail Infrastructure

IDS has also been used in railway station improvement and upgrade programmes, particularly for access chambers at the base of platform lighting columns.

Sewage Treatment Works

IDS has been used extensively in many civil engineering applications e.g. Norwest Holst Stanton Sewage Treatment Works.

IDS Ordering and Specification

To order the complete **IDS Integrated Ducting System** or any individual components please refer to the following charts and quote the specific product reference numbers.

IDS Chamber System

System	Nominal size	IDS order ref.
Single Unit		
System 1	275 x 295 x 380	MC1
System 2	300 x 450 x 380	MC2
System 3	450 x 450 x 380	MC3
System 4	450 x 600 x 380	MC4
System 5	600 x 600 x 380	MC5
System 6	300 x 430	C6
System 7	900 x 450 x 380	MC7
Raising Unit		
System 2	300 x 450 x 250	MC2/R
System 3	450 x 450 x 250	MC3/R
System 4	450 x 600 x 250	MC4/R
System 5	600 x 600 x 250	MC5/R

IDS Pole Chamber System

Chamber	Nominal size	IDS order ref.
PCSQ1	300Ø	PCSQ1
PCSQ2	450Ø	PCSQ2

Adaptor	Nominal size	IDS order ref.
P1	76mm pole	P1
P2	115mm pole	P2
P3	140mm pole	P3

Remote Pole Housing Unit	Nominal size	IDS order ref.
RPHII5	705mm deep (accepts 115 pole)	RPHII5

IDS Pole Chambers

Pole Chambers are supplied complete with a temporary pole sleeve cap and **IDS** Anti-Rotational Bracket.

IDS Frext and Gasty Frames

Chamber	Nominal size	Frext	Gasty
MC1	300 x 300	Frext 3030	Gasty 3030
MC2	300 x 450	45030	45030
MC3	450 x 450	4545	4545
MC4	450 x 600	6045	6045
MC5	600 x 600	6060	6060

Please state depth of paviors/block paviors being used in conjunction with these frames.

IDS Anti-Slip Composite Cover - B125

Chamber	Nominal size	IDS order ref.	
MC1	300 x 300	PGAS300300	B125
MC2	300 x 450	PGAS300450	B125
MC3	450 x 450	PGAS450450	B125
MC4	450 x 600	PGAS450600	B125
MC5	600 x 600	PGAS600600	B125
C6	300 x 300	PGAS300300	B125
MC7	900 x 450	PGAS450450x2	B125
PCSQ1 (Pole box)	300 x 300	PGAS300300	B125
PCSQ2 (Pole box)	450 x 450	PGAS450450	B125

Ductile Iron Frames

Chamber	Nominal size	IDS order ref.
MC1	300 x 300	DUNF/01L
MC2	300 x 450	DUNF/02L
MC3	450 x 450	DUNF/03L
MC4	450 x 600	DUNF/04L
MC5	600 x 600	DUNF/05L
C6	300 x 300	DUNF/06LT
PCSQ1 (Pole box)	300 x 300	DUNF/06LT
PCSQ2 (Pole box)	450 x 450	DUNF/07LT

IDS Ducting Systems

PLEASE SPECIFY EITHER:
Polyduct/IDS Twin Wall/IDS Flexible Twin Wall/GP Twin Wall/Ridgicoil/IDS Flexible Single Wall/IDS Tetraduct as applicable including O.D., wall thickness and reference number.

IDS System Integrity

To ensure the integrity of the system, only **IDS** components should be used.

National Enquiry Telephone and Fax Numbers

☎ 0845 072 0241 Fax: 0845 072 0242

Web Address

www.ids-access.co.uk

Stocking Depot Telephone Numbers

Burdens

Integrated Ducting Systems are available through Burdens' national network of branches.

MIDLANDS

• Rugeley	☎ 01889 575588
• West Bromwich	☎ 0121 5220680
• Nuneaton	☎ 02476 378130
• Nottingham	☎ 0115 900 7530
• Lincoln	☎ 01522 508480

WALES

• St. Asaph	☎ 01745 585888
• Llangadog	☎ 01550 777893
• Cardiff	☎ 02920 667755
• Hirwaun	☎ 01685 810500
• Swansea	☎ 01792 584054

NORTH

• Warrington	☎ 01925 632121
• Manchester	☎ 0161 202 8000
• Bolton	☎ 01204 527694
• Penrith	☎ 01768 214200
• Leeds	☎ 0113 231 1339
• Stockton-on-Tees	☎ 01642 608806
• Blaydon	☎ 0191 414 9700
• Sheffield	☎ 0114 244 9937

SOUTH WEST

• Bristol	☎ 0117 941 4422
• Exeter	☎ 01392 250784
• Dorchester	☎ 01305 265422
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