cpm
Off-Site Solutions

CPM Manhole Innovation

Concrete for Life

Welcome to CPM

CPM is a market-leading manufacturer of precast concrete products with extensive production facilities across the UK. This, combined with a network of specialist distributors, enables us to provide our customers with complete UK coverage. The CPM business is built on a solid reputation for delivering quality precast concrete products and providing a first class service. We supply a vast range of sustainable precast products to every sector of the construction industry, fully supported by our engineering and technical teams.

CPM Off-Site Solutions

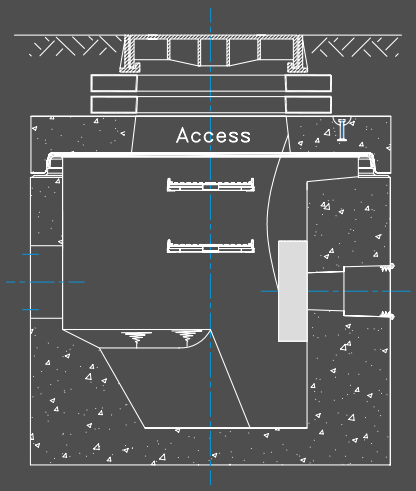
The construction industry's demand for fast, efficient, modular systems has, in line with CPM's continuing progress of innovation and product development, lead to CPM being able to offer a diverse range of precast concrete off-site solutions.

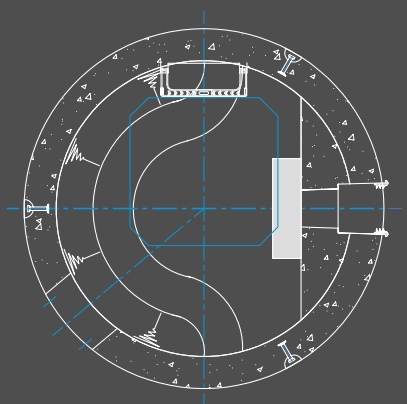
These solutions include sealed manhole systems, direct access pipe systems, preformed chamber systems and flat pack chambers that have been specially designed to reduce installation time whilst offering a safer working environment.

CPM Technical Expertise

Based centrally in the Midlands, CPM has a Technical Department with qualified civil engineers on hand to give advice on every aspect relating to our products and services and offers a complete design, engineering and technical support service.

CPM Typical Section / Plan





Please note that all weights and dimensions are correct at the time of publication and are subject to change.
A copy of CPM's terms and conditions can be found at www.cpm-group.com

+ Product Index

CPM Manhole Innovation

CPM has an ongoing, intensive research and development programme, which is headed by an experienced and dedicated Product Development Manager ensuring that the product range constantly evolves and provides customers with innovative solutions to suit their requirements.

CPM Innovation detail

Ovoid channel and Internal back-drop junction in 2100mm chamber

Side entry pipe and chamber section pre-cut ready for manufacture

CPM Partnerships

CPM has built long term partnerships with both customers and suppliers alike, including major building and civil contractors, water companies and national merchant distributors. This enables us to manage our business more effectively and deliver quality precast products and services competitively.

We listen to our customers and work closely with them to provide solutions based on sound designs and engineering knowledge that we have acquired through years of pre-cast concrete production.

CPM has developed partnerships with storm and foul water technology companies, ensuring that we offer the latest pre-fitted equipment and expertise in all forms of water management.

Pre-fitted Optimum Hydro-Brake®

Pre-fitted Commercial Rainwater Harvester Filter

CPM Continual Investment

To ensure that CPM remains at the forefront of precast concrete drainage innovation, we have invested in state of the art machinery, moulds and equipment to ensure the very best in product design, manufacture and supply.

1800m sealed manhole being cored for a 900mm internal diameter pipe

CPM has invested in the only 'rope' saw of its kind currently working in the UK, which can cut multiple pipes

Further investment into two factories has increased production capacity and quality

Advantages of using CPM Manhole Systems

- **Safer construction / Faster installation**
- **Smaller footprint compared to traditional build**
- **Innovative and flexible design / Pre-fabricated units delivered to site**
- **Watertight chambers**
- **Manufactured to British and European Standards under factory conditions**
- **Greenhouse Gas Emission savings / Concrete for life – built to last**

1200mm stop end bend complete with pre-cored inlet and back-drop holes

1800mm sealed manholes

1200mm manhole base with 300mm main channel and five laterals

The Perfect Manhole System

After an extensive research programme, CPM introduced the 1200mm Perfect Manhole system in October 2009 to meet the challenges of modern day construction. Today it is available in 1200mm and 1500mm diameters comprising of a monolithic precast concrete base (available pre-benched in any configuration within just days of requisition), a sealed chamber ring (with a thicker wall than a traditional ring), a rubber joint (so no tokstrip or similar product is required) and a sealed cover slab (supplied with your required access).

For other sizes please Telephone: 01538 380500 or Email perfect@cpm-group.com

This unique system of products combines to form the CPM Perfect Manhole system; designed and manufactured to last a minimum of 120 years, provides a sealed manhole system that gives up to 40% savings on green house emissions compared to traditional manhole construction and eliminates the need for ready mixed concrete to form the traditional base, chamber benching and further concrete to surround the manhole. A complete manhole can be installed in as little as 25 minutes, making safe site practice a real winner. When using the Perfect Manhole it reduces the need to work in confined spaces and eliminates the need for wet trades resulting in rapid construction compared to traditional methods as well as a reduction for the excavation space to be open.

The Perfect Installation / Time Line

#1

17:05

#2

17:10

#3

17:15

#4

17:20

#5

17:25

Attributes of the Perfect Manhole System

✓ Build Greener	Up to 40% lower greenhouse gas emissions
✓ Build Leaner	Saves material and labour and no waste
✓ Build Faster	Speedy installation
✓ Build Safer	No confined space working, excavation closed quicker
✓ Build Quality	CPM's Perfect Manhole is produced in a quality controlled factory environment

Quality of the Perfect Manhole System

- ✓ **The Perfect Manhole complies with BSEN1917:2002 and BS5911-3.**
- ✓ **The Perfect Manhole is accepted for use by all major UK companies and is included in Sewers for Adoption 7th Edition.**

The Perfect Manhole take off tool / Configurator

Available from CPM's website www.cpm-group.com is the Perfect Manhole take off tool and configurator. Which allows you to input your 1200mm or 1500mm manhole details and email them to perfect@cpm-group.com and we will send you back a complete schedule and costs for your project.
Please visit: www.cpm-group.cpm for more details.

Advantages / Perfect Manhole System

- **Safer construction**
  No requirement to form a concrete surround. Reduction of open excavation.
- **GHG savings**
  Up to 40% savings on GHG emissions compared with traditional construction.
- **Fast installation**
  The modular solution eliminates the need for wet trades resulting in rapid construction compared to conventional methods.
- **No need to surround in concrete unless specifically required**
  130mm / 140mm wall thickness.
- **Available at short notice**
  Our modern methods of production enables just in time delivery of all components including bases at short notice.
- **Watertight**
  The combination of a thicker wall and rubber joints ensures a watertight structure.
- **No water ingress into sewerage network reduces treatment costs**
  The combination of a 130mm/140mm wall thickness and sealed rubber joint is guaranteed to withstand 5m head of water pressure.
- **Combined seal includes load distributor**
  Load distribution ensures even distribution of vertical loads.
- **Allows joint inspection**
  Correct installation can be visually confirmed.
- **Fully tested under factory conditions**
  The whole system from base to cover slab is subject to testing.
- **Kitemarked solution manufactured under factory conditions**
  Complies with the requirements of BSEN 1917 and BS5911-3
- **Concrete for life – built to last**
  High quality durable concrete with a minimum 120 year design life.
- **Flexible connections**
  The Perfect Manhole can be connected to plastic, clay, cast iron or concrete - giving you a larger choice.

*Watertightness is defined in BS EN 1917 as resisting a 5m head for 15 minutes. This is to simulate a temporary surcharge condition not a permanent head of water.
*Shafts in high water tables are subject to buoyancy effects. For further information please contact the CPM Group Technical team.

Ticking all the boxes

- **Efficient construction**
  Available in varying depths for efficient construction.
- **Base options**
  Available pre-benched or plain bottom with or without inlet / outlets.
- **Pre-fit options**
  Hydro-Brake®, penstocks, non-return valves, and filters can be pre-fitted in the factory.
- **Customer choice**
  The perfect manhole is available with or without double steps. Sealed chamber rings can be used without the perfect base.
- **Cover choice**
  Each perfect manhole is available with a cover slab opening of 600 x 600mm, 675 x 675mm, 750 x 600mm or 1200 x 675mm

Extra Services

- **Full take-off service available**
- **Lifting apparatus available for fast, effective and safe handling**
- **Full installation guide available**
- **Hydro-Brake® / Penstocks and valves can be pre-fitted**

Available in 1200mm, 1500mm and 1800mm diameter, for other sizes please call 01538 380500 or Email perfect@cpm-group.com

Sealed Manhole System 1800mm

After the successful introduction of the 1200mm and 1500mm perfect manhole system, CPM has developed an 1800mm sealed manhole that can be used for precast concrete pipes up to 900mm diameter.

The system includes a cast-in base and incorporates the concrete butt pipes into the chamber base and pipe channel; this only leaves the benching to be completed on site. By leaving the benching out of the base element, the weight of the unit is reduced depending upon the configuration.

Deeper manholes are accommodated by using a reducing slab to a 1200mm sealed manhole.

1800mm sealed chamber showing channel with slight bend

1800mm sealed manhole

1800mm sealed chamber complete with pre-fitted butts and cored lateral

Plain Base Options

Plain cast-in base options are available for 1200mm, 1500mm and 1800mm versions of the Perfect Manhole. This allows the customer to core and install inlets and outlets to suit site layouts and finish off benching on site, whilst retaining the main advantages of the Perfect Manhole system

1200mm sealed chamber complete with plain base

Non-Man Entry Manhole System

CPM has developed a Non-Man Entry Perfect Manhole in response to Sewers for Adoption 7th Edition inclusion of Type 3 inspection chambers. This size gives the room for jetting equipment and room for both visual and camera inspection. After discussions with Water Companies, the decision was taken to have a 600mm circular chamber size.

At present, the chamber base is available with six base variations for 150mm pipes complete with flexible watertight inlet and outlet seals. The chamber has been designed for installation into roads without the need for a concrete surround

600mm sealed chamber base

600mm sealed chamber base and chamber section

600mm Non-man entry system

Direct Access Pipe Systems

CPM has developed and manufactured an off-site manhole for large diameter concrete pipe systems that completely removes the need for a traditional manholes, any on-site benching or concrete surround. The system incorporates the highly successful, and Sewers for Adoption 7th Edition approved, sealed manhole joint system.

With all components suitable for use in wide ranging situations including on-line storage, single or multiple off-line tank systems, the Direct Access Pipe System has proven successful in replacing large diameter traditional manholes.

Advantages of the Direct Access Pipe System

- Modern method of manufacture giving a quality, dimensional accurate product
- Reduced footprint, with 1200mm sealed manhole shaft access
- Reduction in the time taken to build manholes, from many days to just hours
- Greatly reduced Health and Safety risks
- Removes the need for any benching on site or concrete back-fill
- Economic method for access to tank systems eliminating the requirement for a traditional manhole, with for man or non-man access
- Long term easy access into the system for maintenance
- Watertight joints to both pipes and manholes, including load bearing seals
- Established and proven product range that is Quality Assured
- Inherent structural strength of concrete with an 120 year design life
- System can be designed to suit most structural and hydraulic specifications including installation under roads
- Flow control devices can be incorporated into the system, such as Hydro-Brakes®, Orifice Plates, Penstocks or a combination of all
- AutoCAD drawings can be provided
- Can be combined with a Rainwater Harvesting system

Sealed chamber installation

End entry pipe

Side entry pipe

End Entry Manholes

An end entry manhole is used at the end of either an in-line or off-line tank, consisting of a standard pipe with a reinforced end wall, saddle slab pre-fitted onto the barrel complete with an access hole to suit and a 1200mm sealed manhole joint.

A 1200mm sealed manhole shaft can be used to make up the desired height with inlet and outlet connections cored or formed to suit your drainage requirements. An internal side wall can be incorporated in the end of the pipe if required, as well as double steps or ladders to permit access.

An end entry manhole is classified as a junction within the scope of BS EN 1916:2002

Available from 1200mm and above, smaller diameters can be manufactured upon request, please call: 01179 812791 for details.

1800mm pipe complete with end wall with a 150mm internal diameter hole inlet, 1200mm sealed manhole shaft opening and a side wall for access

Side Entry Manholes

1200mm pipe complete with a 1200mm sealed manhole shaft

Side entry manholes are normally used to gain mid run access entry into in-line or off-line tanks and consists of a standard concrete pipe complete with access shaft.

Depending upon the overall depth, a sealed manhole cover slab or reducing slab to a 1200mm sealed manhole complete with a load bearing seal can be supplied. 1200mm rings are used to make up the desired shaft height and double steps or ladders can be fitted into the unit.

Side entry manholes can be supplied with a separate bend to provide a change of direction and access can be to either side of the pipe.

Side entry manholes are classified as a junction within the scope of BS EN 1916:2002

The side entry manhole is available from 1200mm and above, however if you require a smaller size please call: 01179 812791

Direct Access Pipe Systems

Mid Entry Manholes

Mid entry manholes are usually used for mid run access into either in-line or off-line tanks and consist of a standard pipe with a saddle slab and cored access hole. The saddle slab has a joint for a 1200mm sealed manhole to fit onto and can be further reduced to restrict access for cameras only.

Available from 1350mm and above, the system is designed for access only with a winch or via a removable ladder into the main tank and can be supplied with a separate bend to provide a change of direction should you wish. If you require a smaller diameter please call 01179 812791.

Mid entry manholes are classified as a junction/bend within the scope of BS EN 1916:2002

1500mm mid entry manhole

1800mm side entry manhole

Side entry manholes

Side and Mid Entry Manholes complete with a bend

A side or mid entry manhole complete with bend is an economic method for access to a tank system, eliminating the requirement for a traditional manhole and is usually used for mid access into an in-line run requiring a change of direction, it consists of a side or mid entry manhole that incorporates a bend in the barrel of the pipe.

The side and mid entry manhole is available from 1200mm / 1350mm, depending upon the bend angle and manhole type, sealed manhole shafts can be used to makeup the desired height with double steps or ladders being fitted to permit access.

A side and mid entry manhole complete with bend is classified as a junction/bend within the scope of BS EN 1916:2002

End entry complete with 450mm hole

1200mm side entry complete with 10° bend

1500mm run entry complete with bend

Stop End Bends

Stop end bends consist of a 90° bend used in an upright position as an access into the pipeline and are mainly used at the downstream end depending upon the overall depth required, 1200mm manhole shaft can be used to make-up the desired height, with double steps or ladders being incorporated into the unit to permit access.

Inlet and outlet connections can be cored or formed to suit drainage requirements. Stop end bends are available from 1200mm diameter and above, although smaller diameters can be manufactured upon request.

Stop end bends are classified as a bend within the scope of BS EN 1916:2002

Please call 01179 812791 or email sales@cpm-group.com

1200mm stop end bend complete with level inlet

1350mm stop end bend complete with high level inlet

Stop end bend complete with low level inlet

Direct Access Pipe Systems

Stop End Pipes

A stop end pipe is normally used at the end of an off-line tank and do not include access points.

They can be manufactured with an inlet and outlet hole at any position with any diameter hole size complete with a seal. The 200mm thick reinforced concrete end wall has a doweled connection complete with a Hydrotite seal, to achieve a waterproof connection.

Stop end manholes are available across the CPM standard length pipe range and are classified as a fitting or adaptor within the scope of BS EN 1916:2002

Integrated Pipe Flow Control Chambers

CPM integrated pipe flow control chambers have been designed to keep the flow control chamber the same internal diameter as the pipe.

This system is commonly used for in-line attenuation schemes in sizes ranging from 1200mm to 1800mm

1500mm off 1500mm complete with side wall, sump and pre-fitted penstock.

1600mm off 1600mm complete with pre-fitted Hydro-Brake® on headwall.

1600mm off 1600mm flow control chamber.

One-Piece Chamber Systems

CPM has developed chamber systems in 1800mm and 2100mm diameter that can be manufactured up to 2500mm deep in a single part. These chambers can be supplied complete with pre-fitted butt pipes or connections to suit large ovoids and circular pipes.

2500mm deep one-piece chamber complete with ovoid butt and channel

2100mm diameter wide wall manhole complete with pre-fitted ovoid butt and channel plus internal back-drop junction

Single part 1800mm sealed manhole complete with pre-fitted 1200mm butt

Large Sectional Wide Wall Chambers

CPM introduced the sectional chamber system as a quicker and safer alternative to traditional methods of manhole construction. It is available from 2100mm to 3660mm complete with formed inlet and outlet holes to suit.

3000mm sectional chamber installation with a letter box opening for 1500mm concrete pipe.

2550mm sectional installation, base chamber complete with half formed hole for 750mm pipe.

2550mm sectional installation, upper ring with half formed hole for 900mm pipe and formed inlet hole.

Catchpits

CPM has developed a range of catchpits and silt trap manholes to suit the requirements of highway schemes infrastructure projects or smaller private developments.

The reinforced watertight one-piece chambers offer greater design flexibility with a range of cored, pre-formed holes or cut-outs for inlets and outlets complete with seals.

Design options include:

- 1050mm to 3000mm standard tongue and groove complete with a cast-in reinforced base
- 1200mm, 1500mm and 1800mm sealed manhole jointed units complete with cast-in reinforced base
- 100mm to 1800mm pipe inlet and outlet diameters covered by system

Benefits of using a CPM catchpit and silt trap:

- Reduced costs in construction time and on-site personnel
- Sump depths to suit design requirements
- Accommodates uPVC, twinwall, clay, ductile iron and concrete pipe work
- Increased Health and Safety benefits
- Reduced wet well trades for manhole construction
- Product is made and tested under factory conditions
- Green House Gas savings of up to 40% compared to traditional build
- 1050mm unit weighs less than one tonne
- Bespoke design to suit customer requirements
- Standard tongue and groove joints or sealed manhole units available

1200mm sealed catchpit

1200mm standard catchpit complete with cored holes over joint for a deep sump requirement

1800mm sealed catchpits

Flow Control Chamber Systems

CPM has been developing flow control chamber systems for over 10 years and can now provide a comprehensive range of precast solutions to suit most customer requirements.

Chamber systems can be pre-fitted with many different types of flow control devices from Hydro-Brakes® developed in a joint venture with Hydro International, penstocks, non return flap valves or orifice plates or any combination of all types. Chambers can come as complete units depending upon weight or as a sectional system for sites that have access or weight lifting restrictions.

None of the systems supplied by CPM require a concrete surround and have been designed to be installed in a fraction of the time taken using conventional methods.

Standard Sealed Manhole Flow Control Chambers

Following the success of the sealed manhole system, CPM has further developed the 1200mm and 1500mm manholes to include one-piece flow control chambers incorporating a base, headwall and benching. The 1800mm sealed and 2100 wide wall chamber versions are supplied with a headwall and base

1200mm sealed manhole,
complete with pre-fitted Hydro-Brake®

1500mm Hydro-Brake® chamber
complete with 750mm inlet butt

1800mm sealed chamber
complete with Optimum Hydro-Brake®

2100mm wide wall chambers complete
with Optimum Hydro-Brake®

Hydro International Downstream
Defenders® with vortex separator

1500mm integrated flow control
for attenuation tank

Sectional Wide Wall Flow Control Chambers

CPM have developed a range of sectional wide wall chamber systems for 2100mm to 3000mm, suitable for use with Hydro-Brakes®, penstocks, flap valves or any other flow control devices.

Sectional wide wall flow control chambers are designed for use when either weight or access is an issue on site.

3000mm wide wall chamber complete with a separate bolted headwall and CX Hydro-Brake®

Weir Wall Chambers

CPM can supply either sectional weir wall chambers from 1500mm to 3000mm diameter or a 2100mm one-piece unit. The weir wall can be manufactured to any height and be supplied with pre-fitted flow control devices.

2550mm wide wall chamber installed complete with Hydro-Brake® and penstock on weir wall.

1800mm sealed sectional weir wall chamber base complete with a 750mm pipe cast-in to the base.

3000mm wide wall sectional chamber, 1800mm inlet and 1050mm outlet, pre-fitted Hydro-Brake® and penstock.

Wide wall chamber complete with sectional side wall, pre-fitted Hydro-Brake® and non return flap valve.

Split Wall Chambers

The split wall chamber has been designed to allow for inspection of either side of the flow control device. CPM can supply either sectional weir wall chambers from 1800mm to 3000mm or a 2100mm one-piece unit.

The split wall chamber can be manufactured to any height and be supplied with pre-fitted flow control devices

Sectional wide wall chamber complete with split wall and pre-fitted Hydro-Brake® and penstock

Wide wall chamber complete with split wall and pre-fitted Hydro-Brake®

Complex Flow Chambers

CPM complex flow control chambers can be supplied in any of our chamber systems. The term complex flow is used when different storm events need an individual control, i.e. 1 in 20, 1 in 50 etc, requiring the installation of two or more flow control devices.

Weir wall chamber complete with two pre-fitted Hydro-Brakes®

2000mm sectional weir wall chamber complete with two pre-fitted Hydro-Brakes®

Bespoke Chambers Systems

Flat Pack Chambers

CPM has developed a flat pack chamber system that can be used in situations where conventional circular chambers are not appropriate. The chamber size can be manufactured to suit most dimensional requirements and the system comes with pre-fitted watertight wall seals for jointing.

Flat pack chamber with base

Flat pack side

Double height flat pack system

Bolted flatpack

Bolted flatpack

Flat pack chamber

Pump Chambers

CPM produces a range of wet well pump chambers that are available in either a sealed manhole or wide wall chamber system. Chambers can have pre-cored holes to suit or can be pre-fitted with pipe equipment to suit.

Heavy duty cover slabs with rebated accesses and pre-fitted davit sockets can be manufactured to suit most dimensional requirements

2100mm base chamber and section complete with pump pipework cut out in chamber wall

2100mm base chamber and section complete with pump pipework cut out in chamber wall

2100mm base chamber pre-fitted with non return flap valve in chamber wall

Valve chambers

CPM has developed a range of valve chambers that can be supplied as a complete chamber or as a flat pack chamber.

Chambers can be supplied with pre-cored holes or be pre-fitted with pipe equipment to suit. Chamber walls can be rebated to take an access cover or heavy duty cover slab (with rebated accesses if required) which can be manufactured to suit most dimensional requirements.

Once-piece chamber with inlet and outlet holes

Flat pack complete with rebated chamber walls for access cover

Flat pack chamber complete with rebated cover slab for access cover

T-T READY SUMP® / Features / Benefits

Designed and Manufactured In the United Kingdom

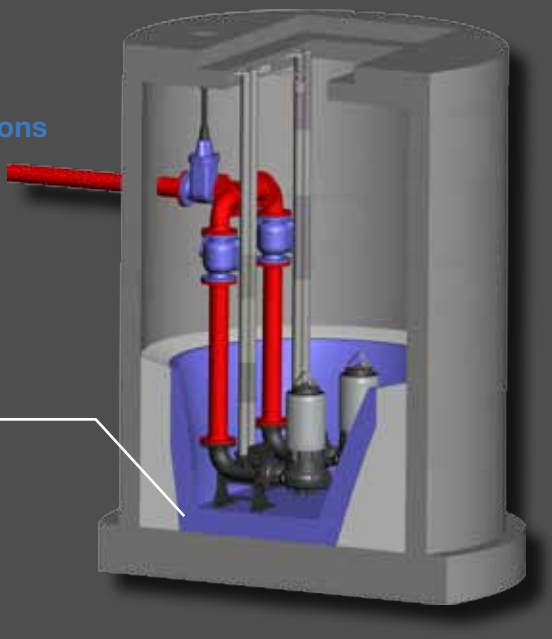
- Smooth and clean design
- Rapid, economic and safe installation
- Reduces health and safety risks on site
- Suitable for adoptive land and private pumping stations
- Superior hydraulic performance
- Reduces construction time and costs
- Readily available

A unique design that incorporates the key features required for sewage, drainage and effluent stations and that meets the adoptable standards demanded by the water companies.
These engineered sumps are produced to high standards with a quality controlled process using precision tools. They have been specifically designed and built with efficiency and cost saving in mind.

As a standard product the Ready Sump® is a stock item and available for delivery to your site on short lead times to suit your requirements. Sealed concrete rings, traditional non sealed concrete rings, access covers and inlet chambers are available options.

Applications:

- Adoptable Pumping Stations
- Non-adoptable Pumping Stations - Drainage Pumping Stations



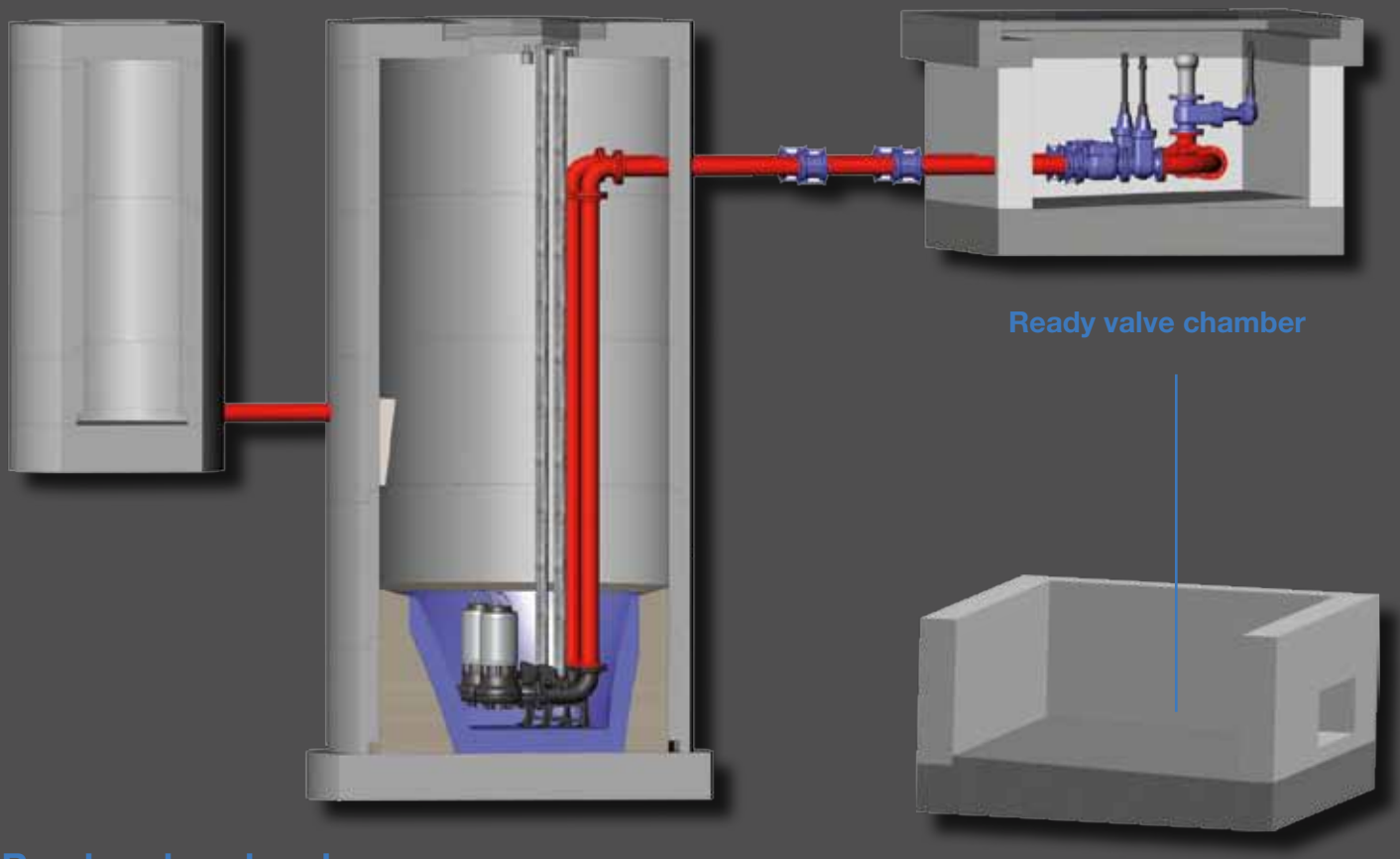
The centre of pumping station construction

When there is no requirement for the pumping station to be adopted by the local water company the Ready Sump® still provides an economic basis for your pumping station.
The pumping station has the virtues of good hydraulic design and associated performances.

The basic Ready Sump® can be incorporated into a standard 1800mm concrete ring or into a larger design where greater drainage volumes are required.

READY SUMP®

The demands of the latest Sewers For Adoption Guide (SFA) requires sump chambers to incorporate a number of key features including benching inclines and positioning of the submersible pumps, all this of which the Ready Sump® accommodates. With the engineered design and smooth finish the Ready Sump® provides the efficient and clean centre of the pumping station.



Ready valve chamber

The Ready Valve Chamber® is essential when constructing a pumping station to the requirement of the SFA guide. Incorporating all the features of a valve chamber and has the flexibility to accommodate various rising main outlets to meet site specifics for right or left hand and straight on connection.

A logical choice, the Ready Valve Chamber® with its factory produced accuracy, clean lines and compliance is an economical solution that is readily available. It is provided as a flat pack for easy assembly within an hour, with no special tooling required.

Size 2400mm x 1800mm

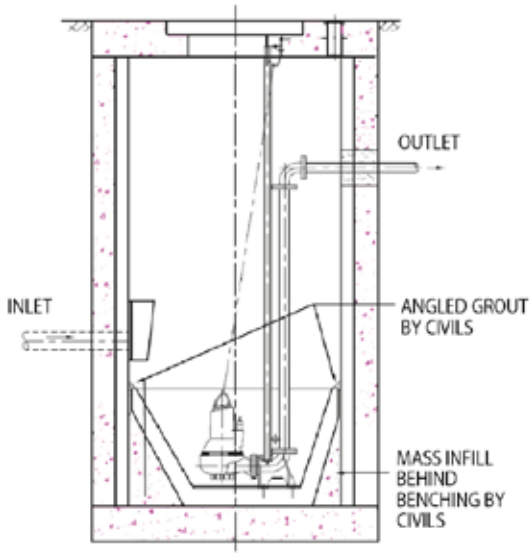
Depth Options 1200mm / 1300mm / 1400mm 1500mm / 1600mm / 1700mm / 1800mm

Other sizes available on request

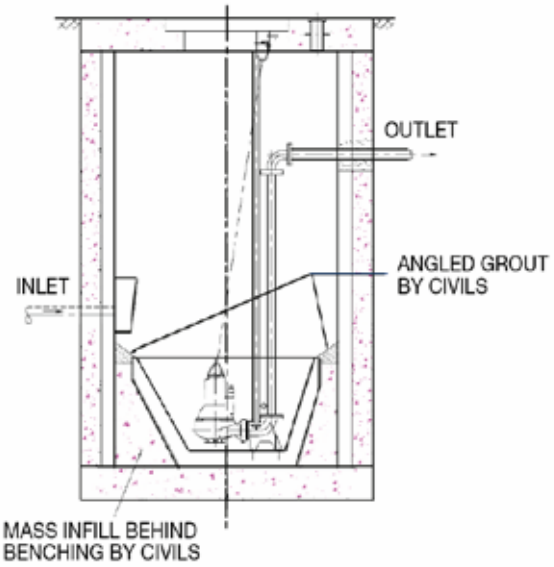
Customised Design

The basic Ready Sump® can be incorporated into a standard 1800mm concrete ring or into a larger design where greater drainage volumes are required.

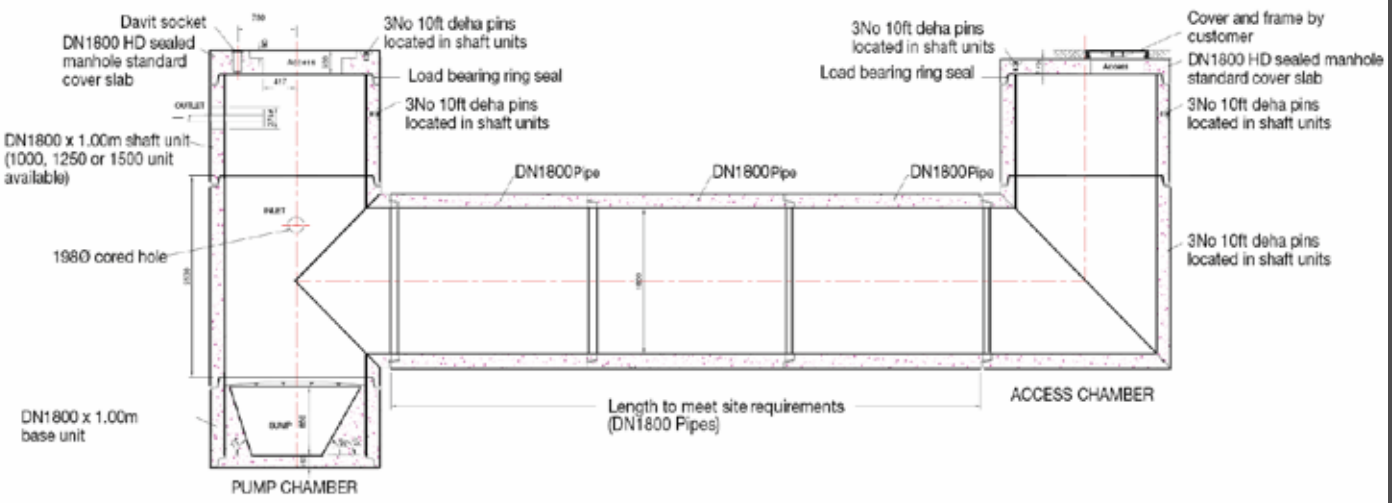
2100mm Plus Pump Chamber



1800mm Pump Chamber



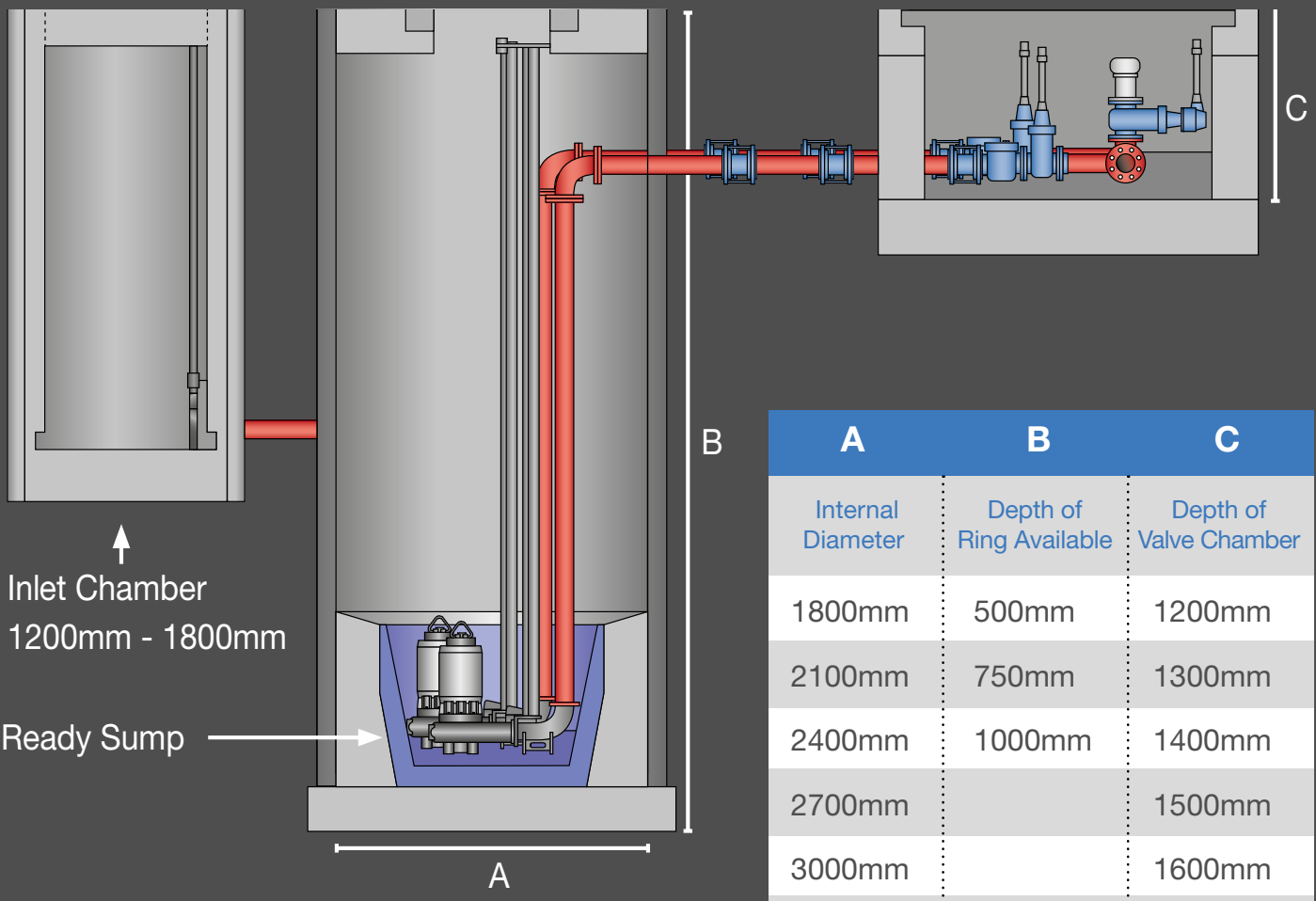
Special design for greater storage



The full package including the Ready Sump®

T-T Pumping Stations are able to provide the complete design and supply of the whole package, civil, mechanical and electrical components, with confidence.

With each unit being adapted to suit individual requirements at manufacturing stage our cost effective solution will take care of the construction, mechanical and electrical installation and commissioning. Overall T-T Pumping Stations offer an efficient solution with reduced civil costs and labour.

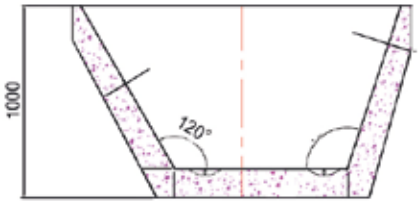


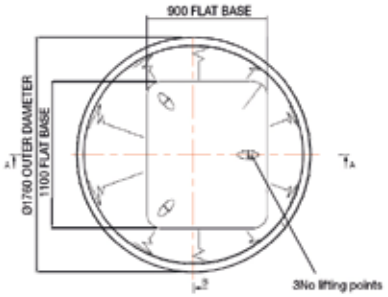
A	B	C
Internal Diameter	Depth of Ring Available	Depth of Valve Chamber
1800mm	500mm	1200mm
2100mm	750mm	1300mm
2400mm	1000mm	1400mm
2700mm		1500mm
3000mm		1600mm
3660mm		1700mm
4000mm		1800mm

Ready Sump / Dimensions

Basic Ready Sump

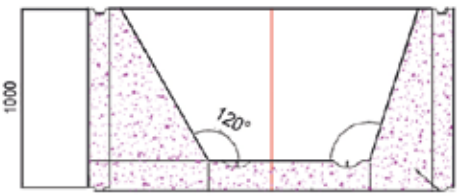
Estimated Weights of an 1800mm 2.1 tonnes

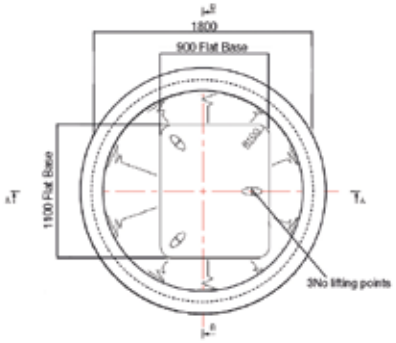




Traditional Non Sealed Concrete Ring Ready Sump®

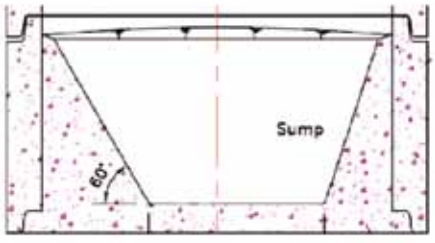
Estimated Weights of an 1800mm 6.1 tonnes

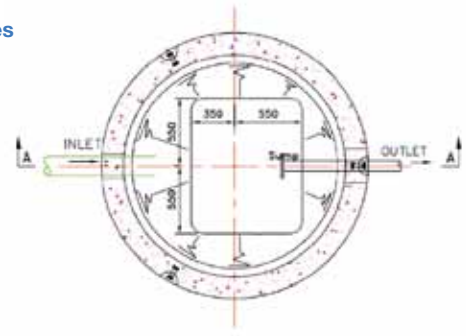




Sealed Concrete Ring Ready Sump®

Estimated Weights of an 1800mm 7.0 tonnes





Manhole / Integrated Ladder System

The CPM integrated manhole ladder system is an innovative product which has been designed to provide safe access and egress to precast concrete manholes, caisson shafts and inspection chambers.

Rungs are pre-fitted into the chamber to provide an installation which is quick, cost effective, reliable and safer than conventional ladders.

The system has WRc approval and meets the essential requirements of existing and new design codes in terms of dimensions and performance and is manufactured in accordance with the requirements of BS EN : 13101 2002 Steps for underground man entry chambers and BS EN : 14396 2004 fixed ladders for manholes

Ease of Installation

- The Ladder Rungs are pre-fitted at 250mm centres into the chamber section, leaving only the Stringer, Locating Bracket and End Caps to fit. Minimal access to a confined space to fit ladder stringers, no lifting, drilling or temporary access required to chamber.

Flexibility

- The incorporation of the Ladder Rung in the manhole automatically takes account of the variation in depth to design.
- No bespoke ladder needs to be surveyed, ordered or manufactured.
- No equipment hire compared to fitting traditional galvanised steel ladder.

Safety

- The polypropylene polymer encapsulation gives high visibility and no sharp edges.
- The rung has a tread pattern to give good slip resistance.
- The stringer has a circular cross section designed to give a secure hand grip unlike a conventional ladder which is normally too large to safely hold on to.

Quality

- Ladder Rungs are Kitemarked to BS EN 13101.
- The Ladder Rungs are reinforced with high tensile steel tube.
- The ancillary fitting brackets are made from stainless steel Grade 304 or 315.

Durability

- The chemical resistance of polypropylene can be considered equivalent to Grade 315 stainless steel.

Strength

- Ladder rungs pre-fitted to ensure factory controlled performance.

Complete UK Coverage

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PERFECT MANHOLE SALES
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