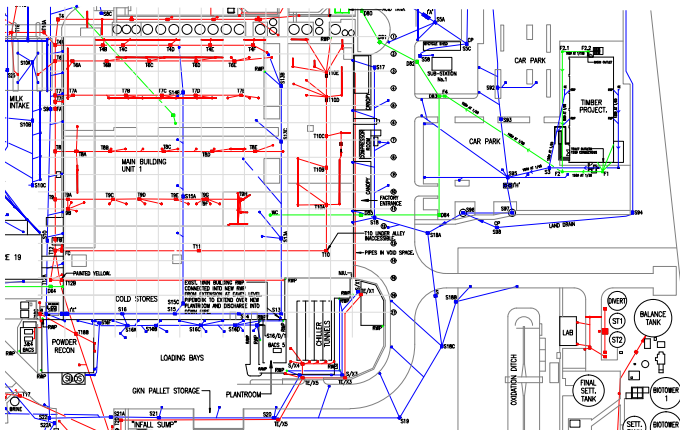


HOW IT WORKS - TAKE OFF

Our team of engineers will complete a full drainage take off from your project's AutoCAD / PDF drawings. To build the base digitally for manufacture they require the following information:

- Pipe type
- Inlet & Outlet angles
- Cover level
- Invert level
- Cover slab openings
- Seating Slabs

All the bases are exported to PDF where we can send it back to you for approval.



Autocad drawings

TRACEY JOB No.		DATE	CUSTOMER NAME	DELIVERY ADDRESS	PIPE CODES										
TCL1205		04/03/2019	Sisk	Centre Parcs											
ALLOWANCE FOR STEEL COVER															
150															
Manhole	No. of Outlets	No. of Inlets	Cover Level	Invert Level	Depth to Invert	M/H Size	Core Height	Pipe Size	Depth for Rings - 55 and 60	M/H Rings	Total	Height DIT	Ladder Required	No of steps/ rungs	
F27	1	2	54.050	49.120	4.931	1200	300	150	3985	2	4	4000	14	10	
F28	1	1	52.050	48.424	3.626	1200	250	150	2751	2	1	2750	19	Y	11
F29	1	2	52.000	47.908	4.092	1200	300	150	3227	2	1	3220	15		
F31	1	2	50.300	47.532	2.768	1200	400	150	1753	2	1	1750	17		
F44	1	2	50.200	47.080	3.120	1200	200	150	2256	2	1	2250	6	N	9
F45	1	1	50.300	47.024	3.276	1200	200	150	2331	2	1	2330	19		
F46	1	1	50.050	46.579	3.471	1200	200	150	2226	2	1	2240	34	N	9
F47	1	1	49.250	46.044	3.206	1200	250	150	2012	2	2	2000	12	N	8
F48	1	1	49.600	46.772	2.828	1200	200	150	1983	2	2	2000	17		
F49	1	1	49.480	46.684	2.796	1200	400	150	1751	2	1	1750	1	N	7
F50	1	3	50.050	47.820	2.230	1200	300	150	1235	2	1	1230	15		
F51	1	1	49.300	47.261	2.039	1200	300	150	1494	2	1	1500	6		
F52	1	2	49.300	46.738	2.562	1200	200	150	1737	2	1	1750	11	N	7
F53	1	2	49.150	46.579	2.571	1200	400	150	1526	2	1	1500	26		
F54	1	1	49.100	46.516	2.584	1200	200	150	1739	2	1	1750	11	N	7
F55	1	2	48.200	45.607	2.593	1200	250	150	225	2	1	1500	8	N	6
F56	1	2	48.800	46.150	2.650	1200	150	150	1745	1	1	1750	5		
F57	1	2	48.300	45.851	2.449	1200	200	225	1504	2	1	1500	4	N	6
F58	1	2	48.250	45.486	2.764	1200	250	225	1769	2	1	1750	19		
F59	1	3	49.850	47.730	2.120	1200	200	150	1275	2	1	1250	25		
F60	1	1	49.400	47.211	2.229	1200	150	150	1344	2	1	1250	4	N	5
F61	1	3	49.300	47.430	1.880	1200	200	150	1235	2	1	1250	15		
F62	1	2	49.300	46.721	2.579	1200	300	150	1734	2	1	1750	16	N	7
F63	1	1	49.400	46.569	2.831	1200	200	150	1496	2	1	1500	7	N	6
F64	1	1	48.150	45.179	2.971	1200	150	150	1725	1	1	1750	24		
F65	1	1	48.000	45.404	2.596	1200	150	150	1776	2	1	1750	26	N	7
F66	1	1	49.150	48.126	1.024	1200	150	150	489	2	1	500	11		
F67	1	1	49.100	47.585	1.515	1200	150	150	520	2	1	500	20		
S27	1	2	54.000	49.642	4.358	1500	600	525	2783	2	1	2750	33	Y	11
S28	1	1	52.000	48.806	3.194	1500	600	525	1504	2	1	1500	4		
S30	1	2	51.150	48.402	2.748	1500	700	525	996	3	1	1000	7	N	4
S31	1	1	50.300	47.898	2.402	1500	700	600	727	2	1	750	23		
S44	1	2	50.300	47.580	2.820	1500	500	600	975	2	1	1000	25		

Takeoff Table

PDF APPROVAL - ORDER

Customer: VolkerFitzpatrick
Order: Hertfordshire
Date of Order: 07/05/21



Designation: FW2

- 1 DN / Core Height: 1200mm / 475mm
- 2 Weight: 1669 KG
- 3 Spigot Type: Watertight
- 4 Pipe Type: Shown on base diagram
- 5 Chamber Buildup: -1No 1200 x 1000 wt ring
-1No 1200 Slab 675sq - 2No Seating Slabs 675sq

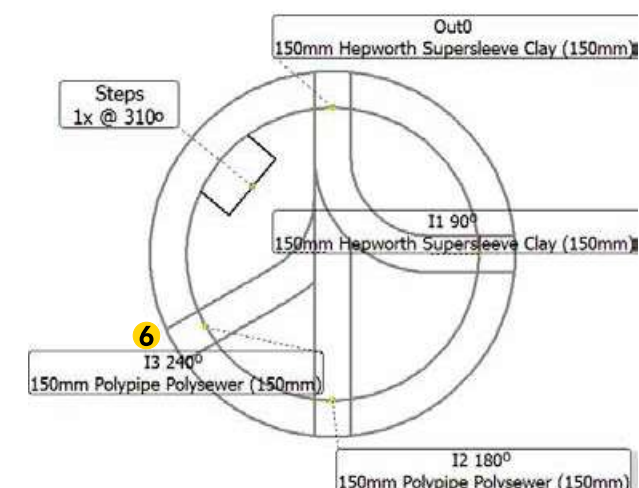
- 1 Check diameter ☒
- 2 Check weight - machine onsite capable of this lift? ☒
- 3 Check spigot/ joint type ☒
- 4 Check pipe type ☒
- 5 Check build up of the chamber ☒
- 6 Check inlet locations and sizes ☒

Approved for Production **Yes** ☒ **No** ☐

Sign & Dated John Smith - 08/05/2021

Customer O/N 12302-12 Internal O/N 1012340

All approved perfect bases will be invoiced no later than 30 days after production, regardless of delivery status.
Please request a copy of our Terms and conditions for full details



The PDF will contain all the Perfect Bases from the take-off showing the layout of each base before production. We recommend that the contractor have their engineer proof each base with his drainage plans before signing off for manufacture.

PRODUCTION

The customers bases are then put into production on the agreed lead time. Using recycled polystyrene we cut the angles for each individual base, which form the channels, inlets & outlets. Within 24 hours the bases are stripped from the mould and put into a curing area. The bases are picked by our loading team when ready for despatch.

Top Tip- Provide us with the dates and order you require your bases so we can have your Priority bases onsite.



Watch how Perfect Bases are made via this QR code



DELIVERY TO SITE

Our despatch co - ordinator will contact you to let you know when your delivery will arrive. You will also receive a text message and email notification.

Please see lifting equipment on our website All lifting equipment for can be supplied by Tracey Concrete. Please let our team know of any site specific requirements: opening times, site contacts and site traffic plans.



THE SEAL - STANDARD & LOAD BEARING

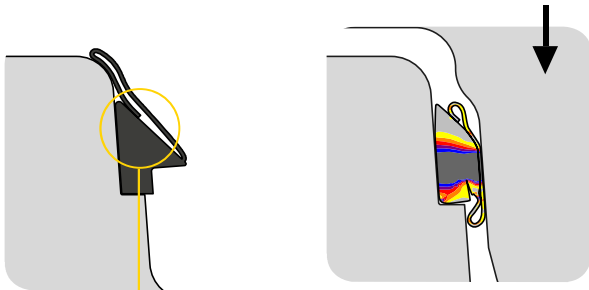
Our **Standard Seal** is the Trelleborg 118, designed as a sliding seal to which lubricant has been applied between the sliding skin and the body of the seal. The tip of the skin is folded over and glued to the body of the seal to ensure the lubricant stays in place. Link to data sheet shorturl.at/xIV27

During installation, the adhesive joint releases allowing the lubricated skin to slide over the body of the seal.

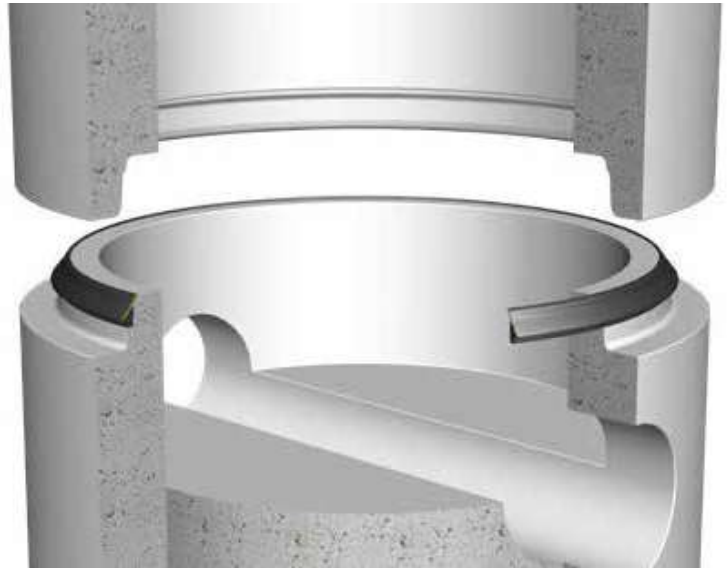
This design permits installation with very low force, as there is no friction between rubber and concrete. The special design of the joint and seal make the system easy to centre during jointing.

- Installation with very low force
- Pre Lubricated seal for manhole system
- Easy to centre during jointing
- Water tested 0.5 bar

The flat side of the seal sits on the shoulder of the ring. When the next ring is installed slides down and seals the joint.



Standard Seal



The Load Bearing Seal is the Trelleborg 171 which has been designed to provide optimized contact and sealing pressure. This ensures superb joint security. The pre-lubricated seal ensures jointing force is minimized at all combinations of joint tolerance.

- Load distribution prevents concrete contact
- Facilitates minimal jointing force

Link to data sheet shorturl.at/eGORU



Load Bearing Seal

QUALITY & TESTING

Material & aggregate testing is essential to produce a high quality precast concrete product. At Tracey Concrete we carry out numerous tests on our materials every day to ensure they are of the highest quality. As a manufacturer we are constantly striving to improve our products to ensure they are of industry leading standard.



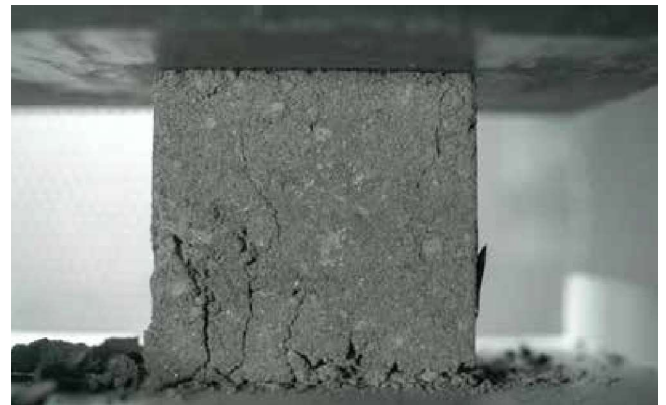
Slump test - Test moisture content of drycast concrete



Flow test - Test moisture of self compacting concrete



Concrete cubes - curing process before testing



Cube crush - Strength test after 14 & 28 days



**3No
watertight
seals**



A sample watertight test carried out at our production facility. On the left you can see the complete chamber and on the right an image of the top of the cover slab showing the chamber full with water.

PERFECT BASE INSTALLATION GUIDE

Introduction

This guide offers advice on how to install the Tracey Concrete Perfect Base system incorporating a watertight elastomeric seal known as a 'Perfect sealed manhole' system. The system provides a manhole whereby all joints and connections have elastomeric seals enabling a watertight manhole to be constructed quickly and easily with the minimum of site work.



Manholes are consequently installed in a similar manner to pipes requiring a different technique to traditional manhole construction

The wall thickness being over **125mm**, means that the installed manhole does not require a concrete surround unless specified by the client.

The Perfect Base complies with ISEN 1917:2002 and IS420 and is kite marked to BS EN 1917 and BS 5911-3 and the 1200 diameter Perfect manhole is CE marked Components

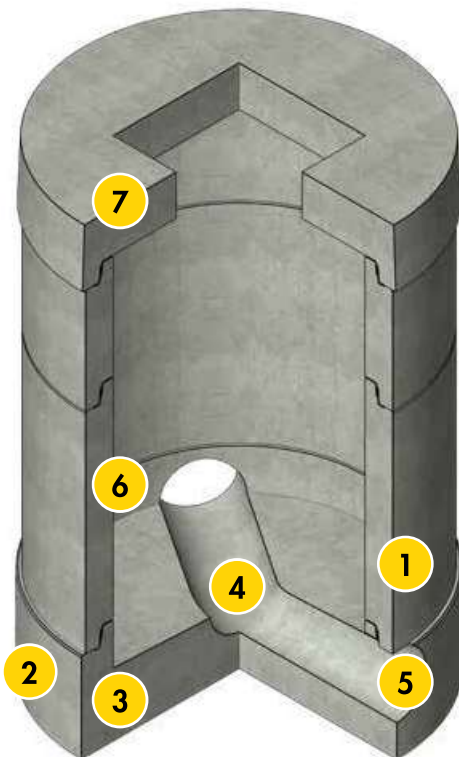
Components

A Perfect Base system will typically comprise of a combination of the following standard elements. Perfect Base units shall comprise of the following:

1. Chamber unit depth dependant on manhole diameter and channel diameter
2. The base depth varies to obtain correct overall height
3. Integral base to give a watertight unit
4. Channel and benching pre-formed to exact requirements
5. Formed holes for jointing to inlet/outlet pipes and seals
6. Shaft unit with spigot and socket joint with the seal fitted
7. Watertight Cover slab with specified opening

*The integrated ladder system is also available with the sealed manhole system Cover Slab

**Manholes & Base can be supplied with or without double steps



PERFECT BASE INSTALLATION GUIDE

Off-loading and lifting

All Tracey Concrete Perfect Bases are manufactured with spherical lift head anchors cast in. The lift head shackle should be fitted in accordance with the manufacturers recommendations with the extended tab pointed in the direction of the lift. Both 2.5, 5 & 10 tonne lift head shackles can be supplied by Tracey Concrete

We recommend that each shackle should be lifted with a suitably rated duplex web sling or chain. Each Base has 3 lifting anchors cast in so 3No Shackles are required for lifting & installation.



lifting angle
for chains
should be
 $\geq 45^\circ$

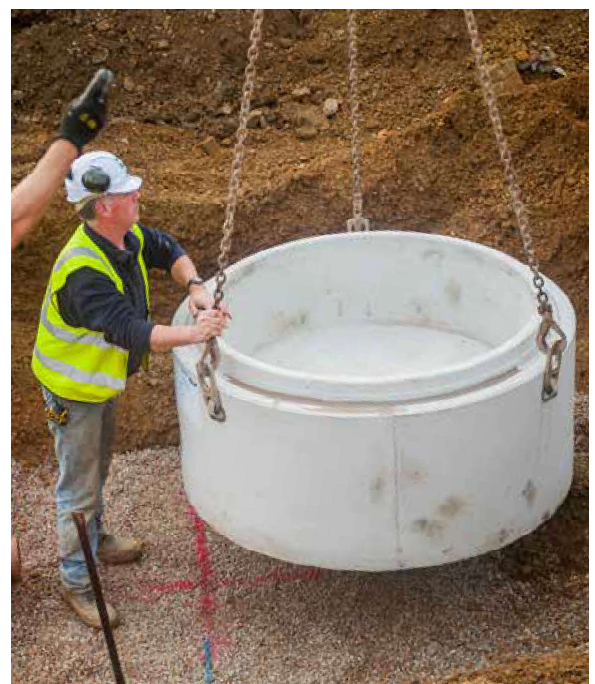


Top Tip - The perfect sticker informs you of what you require to complete manhole

Assembly

Normal considerations should be taken into account when assessing the suitability of the formation. In good ground conditions manhole can be built off either;

- Minimum 150mm pipe granular bedding material being 5-20 graded, 14, 20, 40mm single size suitably compacted to provide a level base.
 - 150mm GEN 1(C8/10) concrete. Base unit should be placed whilst concrete is wet so it can be set level otherwise a levelling screed of 15-20 mm sand cement will be required to prevent point loading on the base unit
- Note: In poor or wet ground conditions a concrete pad is advised. Normally a granular bedding is recommended where the safe ground bearing pressure $>200\text{kN/m}^2$



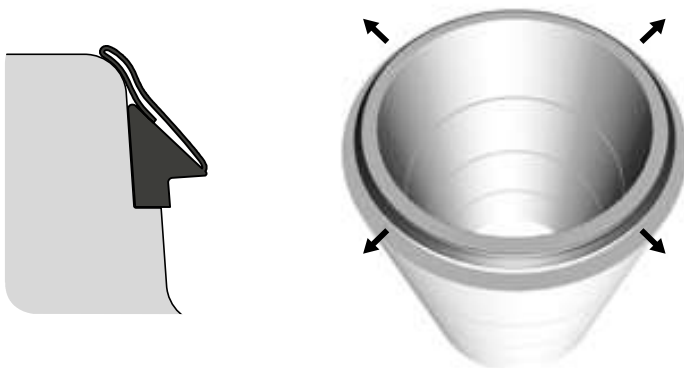
Top Tip - Clean inlets and outlet of any debris

PERFECT BASE INSTALLATION GUIDE

Seal Installation

The seal is ideally positioned on the base unit before it is in the excavation in the following manner

1. Stretch the seal onto the spigot of the manhole and position it against the shoulder. Make sure the load distributor (the circular part) is located on the upper surface of the spigot
2. Check the internally lubricated skin is correctly positioned and sitting against the rest shoulder
3. Equalise the stretch in the seal by lifting at several points



Note: External lubrication is not required



Shaft Construction

Once the bedding has been prepared, the base unit can be positioned. It is advisable to lay the pipeline up to and including the rocker pipe on the downstream side. A short length of pipe should then be inserted into the outlet pipe seal on the base unit. This acts as the 'butt' pipe

Note: The butt pipe is not strictly required as the joint within the manhole wall acts as a flexible joint

The unit can then be jointed with the rocker pipe as it is finally positioned in the excavation. A final level check should be carried out.

Top Tips

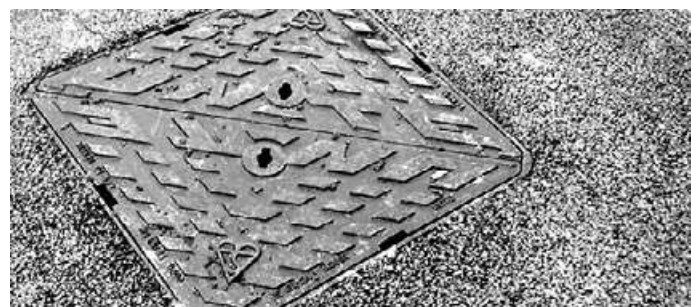
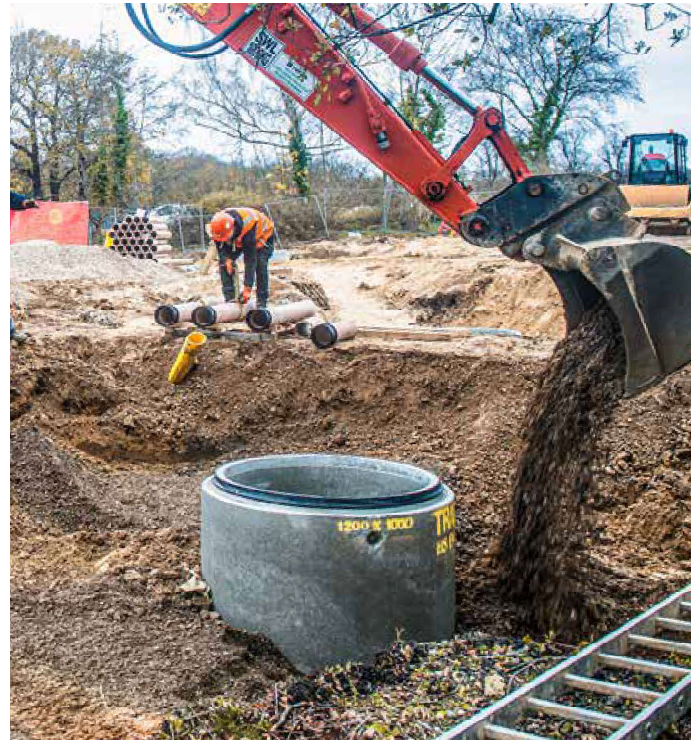
- The perfect sticker has all information to complete manhole
- Install/ fit the Rubber Seals in advance - 2 men
- Clean inlets and outlet of any debris
- Store lifting shackles & seals in a safe place
- Install/ fit rocker or double spigot before lifting into trench

PERFECT BASE INSTALLATION GUIDE

Backfilling

The base unit can be backfilled with a granular pipe bedding around the pipes and suitable material around the shaft. The remainder of the shaft can then be constructed by centring the upper manhole section, and lowering into place. The design of the joint encourages 'self-centring'. For ease of installing it advisable to backfill the shaft as it is built. This provides ease of access to unhook the lift clutches and to guide the units into position.

A joint gap between 10-20mm should be obtained after jointing, this gap may reduce as the shaft is constructed dependant on the depth to the minimum 10mm. The cover slab can be laid again using the lifting system. The slab may need slight vertical downward pressure to seal the unit as the self-weight may not always be sufficient.

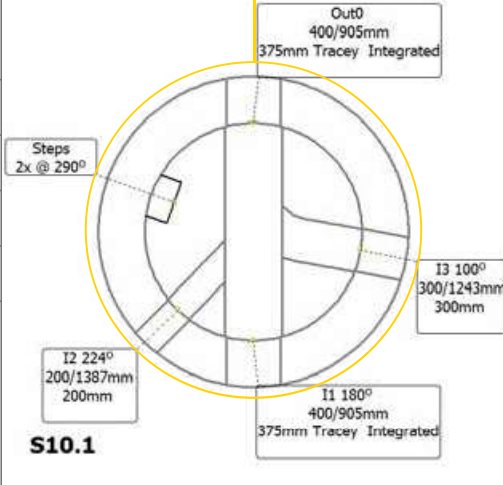


THE PERFECT STICKER

Each Perfect Base is labelled with a bespoke sticker showing important information for installation. All installation details on the sticker on the base. From the take off we state on the sticker what products are required to get to cover level.

Unique Base code
to match plans

Base layout shows
channels & inlets/outlets

Tracey Concrete Limited Old Rossory, Sligo Road BT74 7LF-Enniskillen, Co. Fermanagh www.traceyconcrete.com headoffice@traceyconcrete.com www.perfectsystem.eu Tel. 028 6632 6437 Fax. 028 6632 4908	PERFECT  TRACEY  BASE CONCRETE watertight 	
Customer:	VolkerFitzpatrick	
Order:	Hertfordshire	
Designation:	S10.1	
Date of order:	04/03/2019	
DN / height:	1500mm / 915mm	
Weight:	5843kg	
Concrete quality:	Remark:	
CE EN 1917 EN 206-1	NOTE: LIFTING HOOK SET @ 60 DEG MINIMUM. W/T JOINT. 225mm smooth wall sewer. 375mm Tracey Concrete Pipe. ADD: -1No 1500x1000 WT -1No 1500x500 WT -1No 1500 C/S WT -2No 600 SEATING SLABS -1No 600 H/D LID	

Products required to
reach cover level

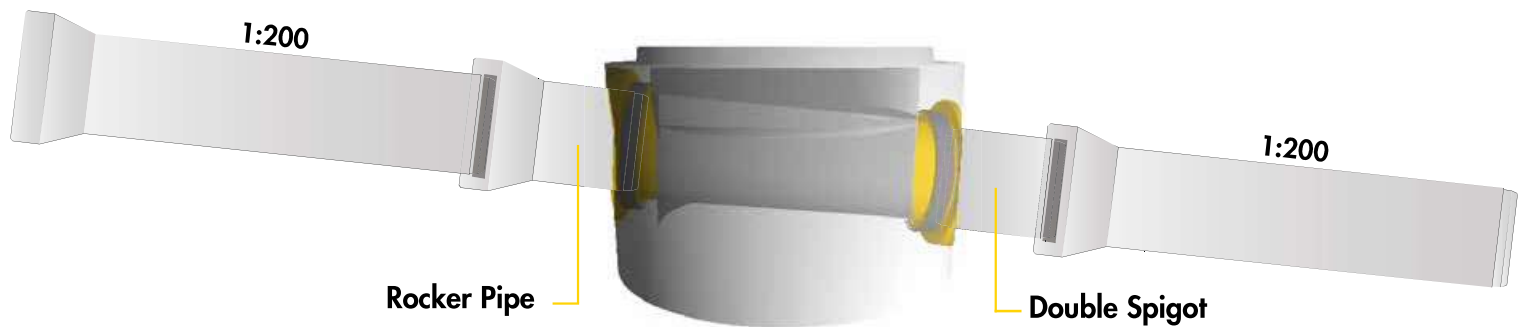


ANY FALL OPTIONS - PAN TILT



With the Perfect Base system we design and manufacture the gradient of the pipe into the base by adjusting the pan tilt of the inlets/outlet.

This simplifies installation when connecting the rocker pipes or double spigot pipes to the base they are set at the correct fall. E.g. matching the gradient of the pipeline specified on the project and leaving pipe installation easier.



PERFECT BASE VS TRADITIONAL

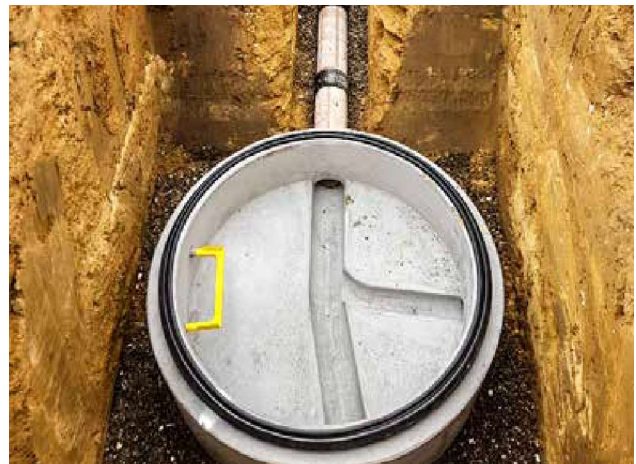
With the Perfect Base there is no wasted time spent laying pipes, to form channels, no part load of readymix to form insitu base and no need to concrete jacket the chamber.

Simply drop in the Perfect Base, fit pipes to inlets & outlet and complete installation by fitting manhole rings and slab. This process saves significant amount of time and is much safer.

Traditional



Perfect Base



CONCRETE PIPE CONNECTION OPTIONS

When connecting the Perfect Base with precast concrete pipe there are some different options. A double spigot pipe & rocker pipe can be used with the same sealing system as in the pipe.

Another option is to use butt end spigot & socket pipe which is a pipe cut at the end with no joint. This method can be used on-site to ensure there is no creepage in the pipeline and causing a manhole to be out of position. To seal butt pipes a Forsheda 910 seal is cast into the base with no joint.



Rocker Pipe being connected to a Perfect Base™



Double Spigot Pipe connected into a Perfect Base™



Double Spigot
DN225 - 1050



Rocker Pipe
DN225 - 2100

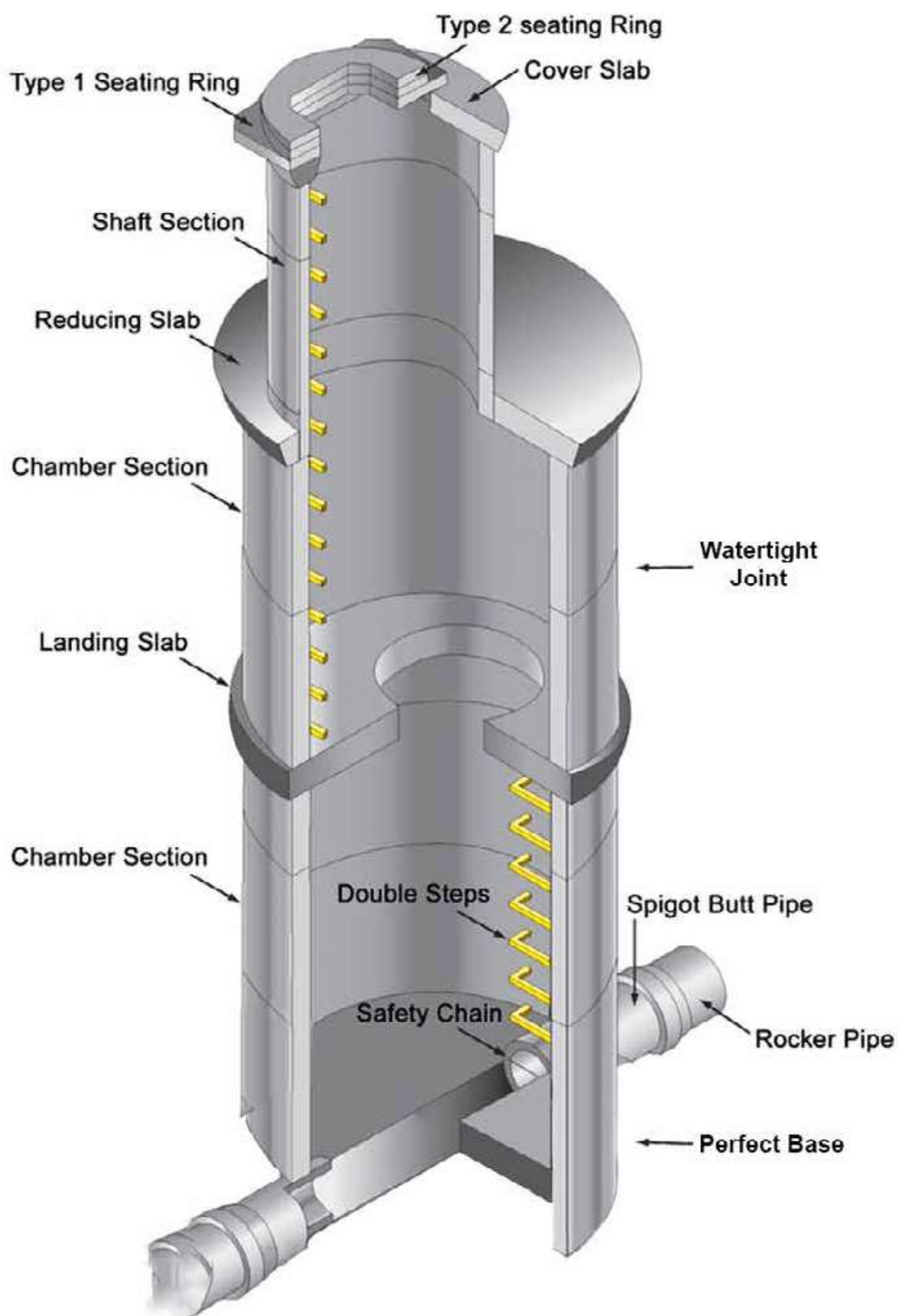


Spigot Butt Pipe
DN225 - 2100



Socket Butt Pipe
DN225 - 2100

COMPLETE WATERTIGHT CHAMBER



CATCHPITS

DN900 - 3000

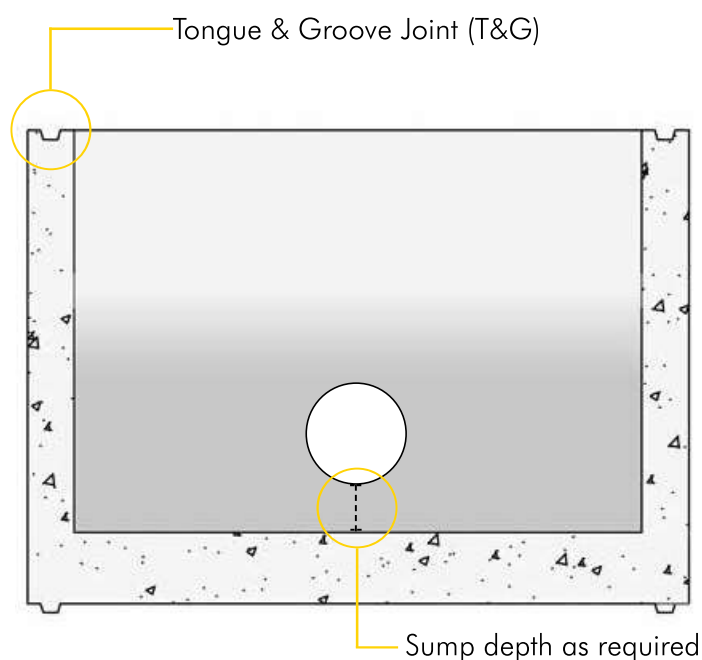
A Catchpit is an empty chamber with an inlet pipe and an outlet pipe set at a level above the floor of the pit. Any sediment carried by the system settles within the Catchpit, from where it can be periodically pumped out or removed.

CATCHPITS / DN900 - 3000

Internal Dia*	Depths**	Wall Thickness	Overall Dia	Circum	Approx Weight/m	Type of Joint	Lifting
mm	mm	mm	mm	mm	KG	-	-
900	1000 1250 1500 2000	70	1040	3050	775	Rebate	Lifting Loops cast in
1050	1000 1250 1500 2000	85	1220	3550	1025	Rebate	Lifting Loops cast in
1200	1000 1250 1500 2000	100	1400	4050	1500	T&G	Lifting Loops cast in
1350	1000 1250 1500 2000	100	1550	4550	1650	T&G	Lifting Loops cast in
1500	1000 1250 1500 2000	115	1730	5030	2200	T&G	Lifting Loops cast in
1800	1000 1250 1500 2000	125	2050	6050	3100	T&G	Lifting Loops cast in
2100	1000 1250 1500 2000	140	2380	7050	5000	T&G	Lifting Loops cast in
2400	1000 1250 1500 2000	150	2700	8050	6100	T&G	Lifting Loops cast in
2700	1000 1250 1500 2000	150	3000	9050	8170	T&G	Lifting Loops cast in
3000	1000 1250 1500 2000	180	3360	10000	11775	T&G	Lifting Loops cast in

*Bespoke Catchpits can be made up to sizes of DN3600mm

**Bespoke Catchpits can be made height of up to 2.5m



WATERTIGHT CATCHPITS DN 1200 & 1500

A Watertight Catchpit is similar to a standard Catchpit but is manufactured with a wider wall and is sealed with a watertight rubber seal. No concrete surround is required on-site as the chamber can be backfilled after completion saving time and costs on-site.

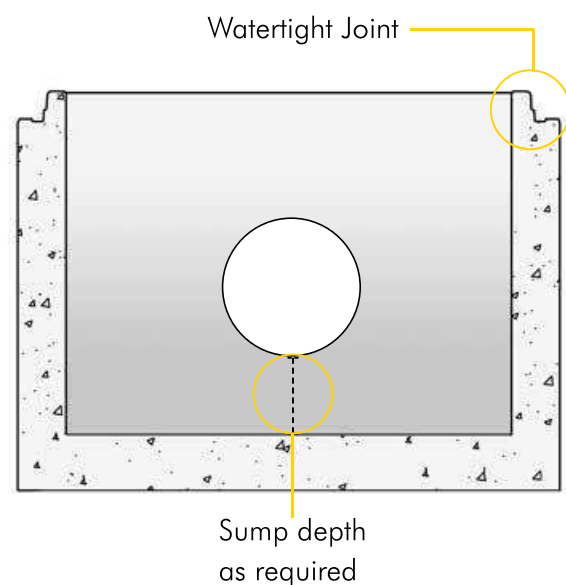
WATERTIGHT CATCHPITS / DN1200 - 1500

Internal Dia	Depths*	Wall Thickness	Overall Dia	Circum	Approx Weight	Type of Joint	Lifting
mm	mm	mm	mm	mm	KG	-	-
1200	1000 1250 1500 2000	130	1460	4712	1780	Watertight	3 x 2.5T Shackles
1500	1000 1250 1500 2000	150	1800	5655	2825	Watertight	Lifting Loops cast in

*Bespoke Catchpits can be made height of up to 2.5m

ADVANTAGES

- Complete watertight chamber
- Off-site solution
- Simple & fast installation
- Can be fitted with any type of pipe
- Reduced time in confined spaces
- Low carbon footprint



FLOW CONTROL CHAMBERS

DN1200 - 4000

A Flow Control Chamber combines an integral base and side walls with option for inlet and outlet openings/connections. A Flow Control Chamber can be used for a silt-trap, valve chamber and can be used as a flow rate controller (requires installation of a vortex or orifice valve unit). Tracey Concrete can offer supply of a vortex or orifice valve device. The vortex or orifice valve is designed to limit storm water outflow to a specific discharge rate. Sizes are available between 1–80 l/s depending on head height.

Hydro-Valve fits the following manhole types:

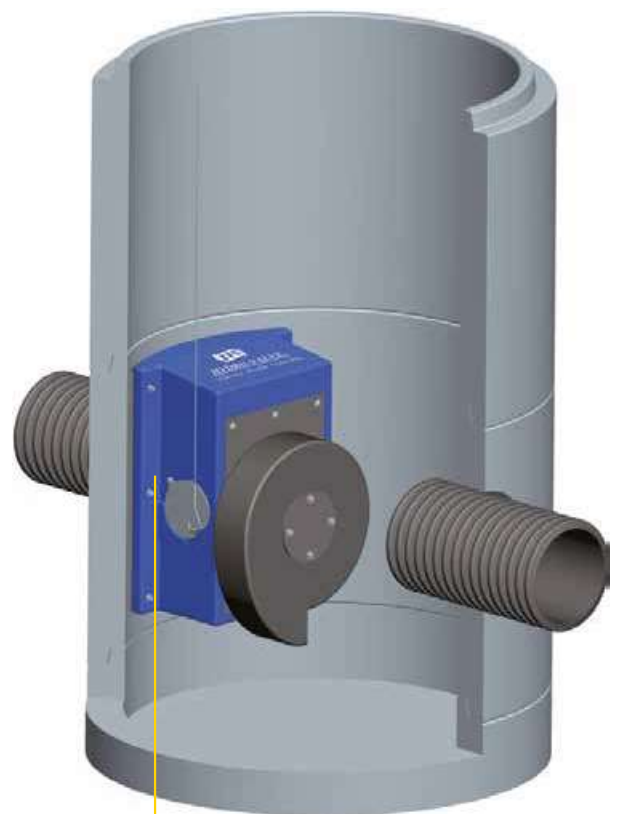
Chamber Size	DN1050	DN1200	DN1350	DN1500	DN1800	DN2100	2400
Flat back *	✓				✓	✓	✓
Curved back		✓	✓	✓			

*Flat back requires shuttered wall on the inside of the chamber

The unit is self activating with no need for an external power source and comes with a certified flow rate. At low flow rates, water entering through the inlet passes through the vortex chamber to the outlet with no restriction. As flow rate increases, water enters through the inlet with enough energy to create a vortex in the vortex chamber, which results in a considerable pressure drop between the inlet and the outlet restricting the flow to the allowable discharge. The vortex or hydro valve flow control operates automatically with no moving parts and no external power source. A typical application of this valve is to control the flow from storm water attenuation tanks, preventing downstream flooding during periods of heavy rainfall



Flat shuttered wall



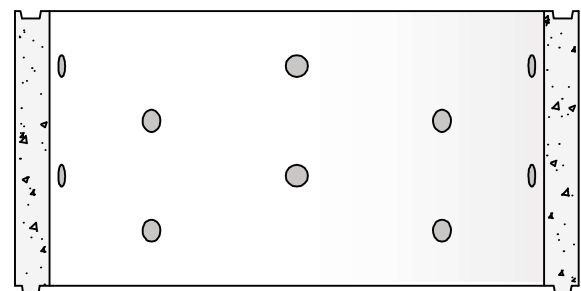
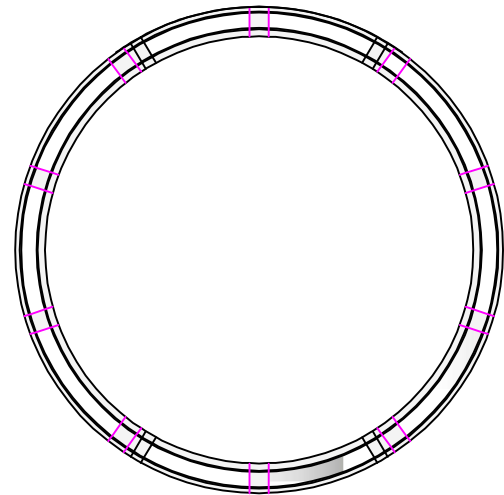
Curved wall hydrovalve

SOAKAWAY CHAMBERS/PERFORATED RINGS DN900 - 4000

Soakaways are a key component for Sustainable Urban Drainage Systems (SuDS). Soakaways provide a simple way of dealing with storm water locally, by encouraging ground water recharge whilst reducing the impact on the existing storm water network.

SOAKAWAY CHAMBERS / DN900 - 4000

Size DN	Depths Number of holes		
mm	500mm	750mm	1000mm
900	5	7	9
1050	6	8	11
1200	6	9	12
1350	7	11	14
1500	8	12	15
1800	9	14	18
2100	11	16	21
2400	12	18	24
2700	14	21	27
3000	15	23	27
3600	18	27	36
4000	20	30	40



Tracey Concrete produce soakaways in depths of 500mm, 750mm and 1000mm, each containing the correct amount of Ø80mm holes to provide a minimum area of permeation of 50,000mm²/m of nominal diameter per metre of height complying to BS EN 1917:2002 and BS5911-3.



HEADWALLS

DN150 - 2100

Designed in accordance with Eurocode 2 & Eurocode 7 we manufacture a wide range of precast concrete Headwalls in various sizes to suit any type of pipe connecting into open water areas including collection ponds and rivers. Concrete headwalls can preserve the surrounding environment by reducing erosion at the outfall connection.

HEADWALLS / DN150 - 2100

Sizes	Openings (mm)	To Suit Pipe Sizes (mm)	Wall Thickness (mm)	Approx Weight (KG)	Lifting Equipment
Small	190 - 640	150 - 450	100 & 150	1500	4No RD24 Lifting Loops
Medium	640 - 990	450 - 750	150	2460	4No RD24 Lifting Loops
Large	640 - 1320	450 - 1050	150	3460	4No RD30 Lifting Loops
X Large (2 Pieces)	1320 - 1900	1050 - 1350	250	Part A: 6000 Part B: 6000	3No 10T Shackles
XX Large (2 Pieces)	1510 - 2500	1200 - 2100	250	Part A: 8000 Part B: 8000	3No 10T Shackles

Weights of headwall may vary depending on opening size
PDF and DWG drawings are available to download from www.traceyconcrete.com

OPTIONS AVAILABLE

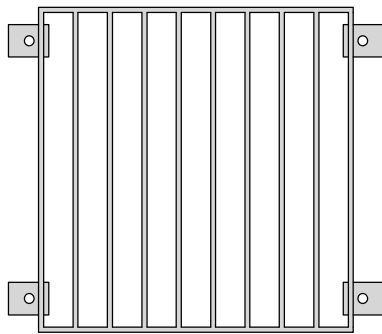
- Hand railings, gratings, flap valves and weir walls
- Special toe pieces
- Bespoke Headwalls manufactured on request
- Water proofing on request
- Box culvert headwalls
- Full drawing designs and calculations provided

ADVANTAGES

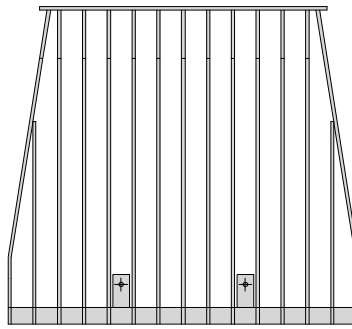
- Simple & fast installation
- 120 year design life
- No on-site shuttering required
- Complete off-site solution
- No part-load charges for readymix concrete
- Prevents soil erosion



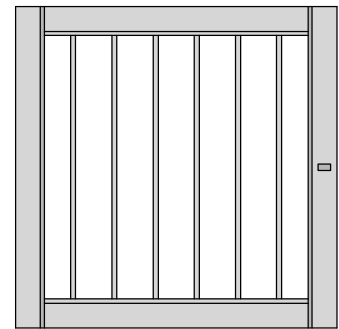
HEADWALLS DN150 - 2100



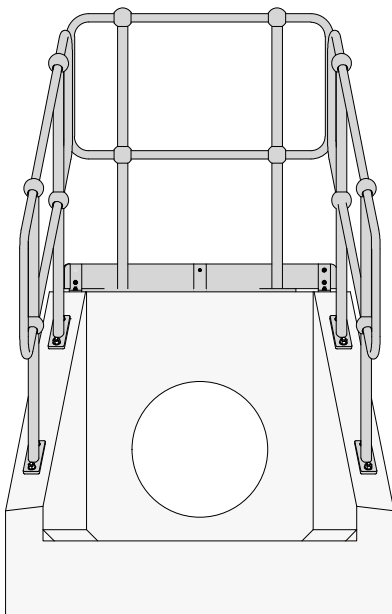
Standard Grate



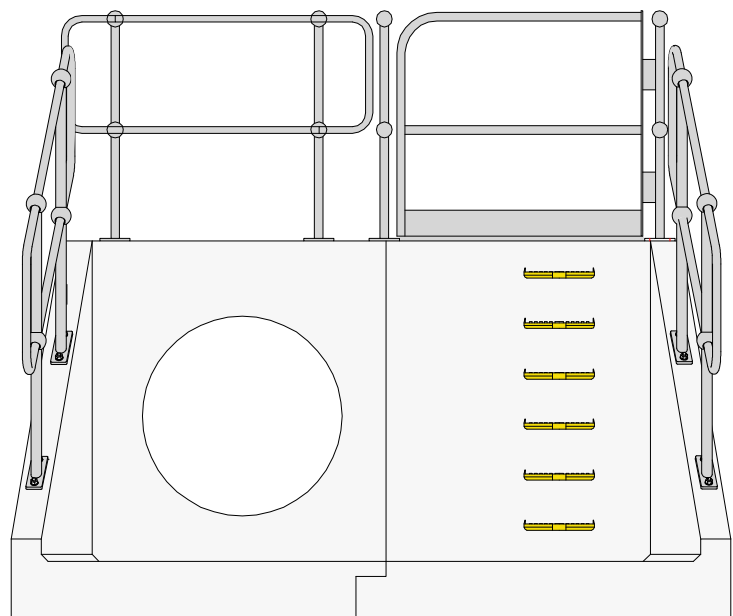
Cranked Grate



Hinged Grate



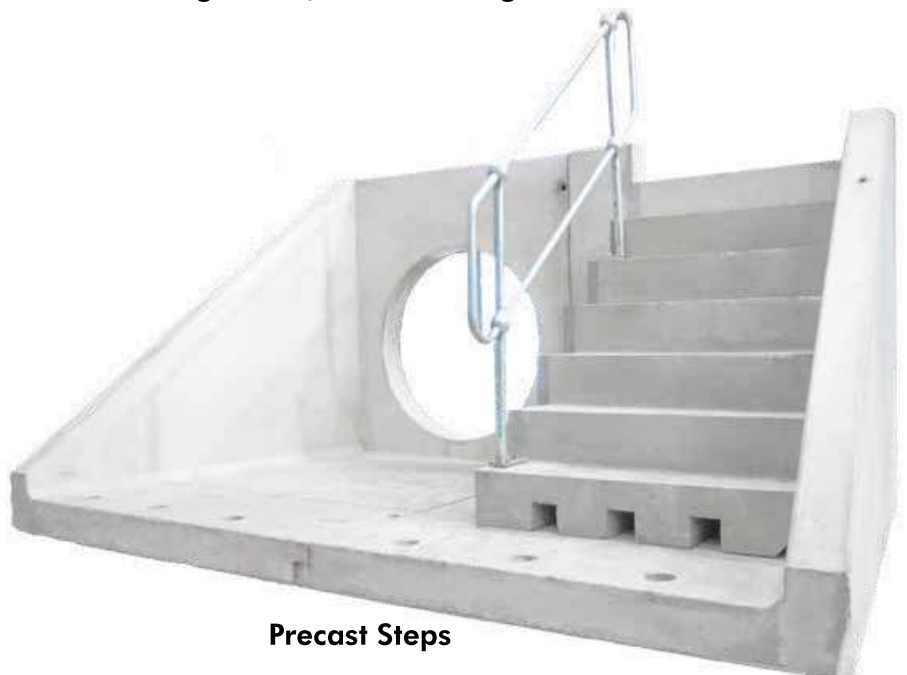
Handrails



Rungs fitted, handrails & gate on double headwall

Tracey Concrete Sewers for Adoption precast headwalls should be used when part of a Section 104 Agreement and the sewers are to be adopted once completed by the local Water Company. The materials used and installation must comply with the 'Sewers for Adoption' guidelines. Adjustable options to meet SFA:

- Backwall heights
- Single or multiple pipe openings
- Specifiable pipe invert levels



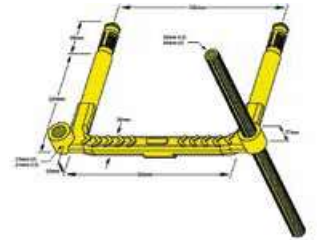
Precast Steps

HEADWALLS

CAST IN LADDERS & STEPS

Tracey Concrete can cast in Ladder steps to headwalls for safe access. The rungs meet the relevant requirements for both steps and ladders and can be used with or without the stringers. The incorporation of the rung in the manhole automatically takes account of variation in depth to design.

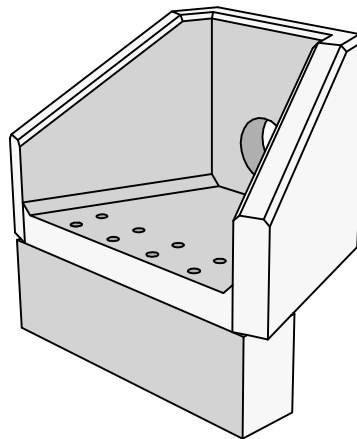
Manufactured to BS EN 14396: 2004



EXTENDED TOE PIECES 250 | 500 | 750 | 1000

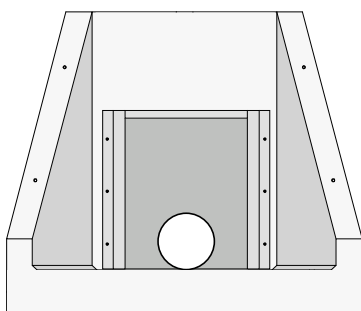
Extended headwall toe pieces are designed to secure the headwall in position for challenging ground conditions.

We can design and manufacture any specified design of a toe piece. Standard lengths are 250mm, 500mm, 750mm and 1000mm.

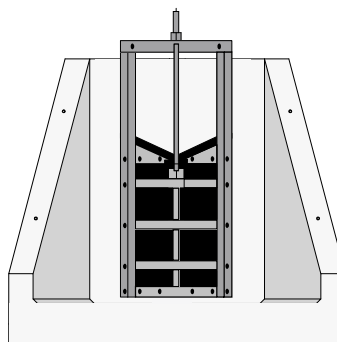


ORIFICE PLATES, PENSTOCKS & FLAP VALVES

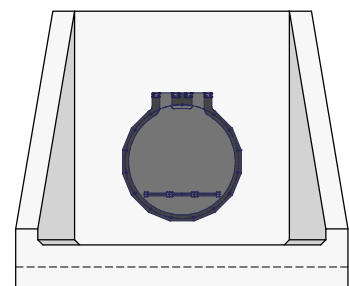
Tracey Concrete can supply and fit the full range of Orifice plates, Penstocks & Flap Valves. Contact our sales team for more details



Orifice plate



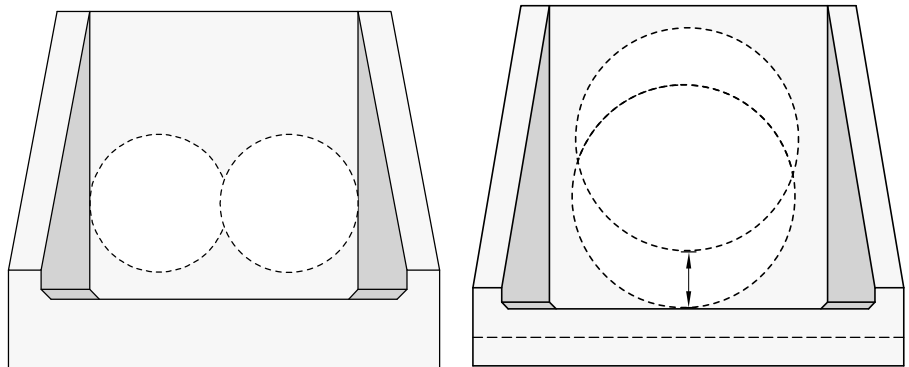
Penstock



Flap Valve

ADJUSTABLE OPENING POSITIONS & SPECIFIABLE PIPE INVERT LEVELS

Tracey Concrete can produce headwalls with adjustable opening positions and specifiable pipe invert levels. If you require a bespoke headwall opening please submit a drawing to our technical team to produce.



BAFFLE BLOCKS



Tracey Concrete manufacture concrete headwalls with precast baffle blocks on the spillway. We factory fit the baffle blocks to our precast headwalls ensuring they fit properly every time and reducing installation time on site. Baffle blocks slow down the flow of water discharging from the pipe across the spillway of the headwall before entering the watercourse.

BITUMEN COATING

Tracey Concrete can produce headwalls with a bitumen paint coat for added waterproofing. The bitumen extends the life of the headwall weatherproofing properties.

The headwall is coated after production under factory conditions and can be installed on arrival to site saving time.

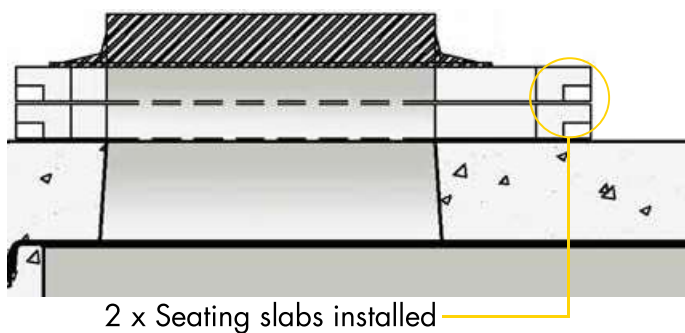


SEATING SLABS & LOTHIAN SLABS

Seating Slabs are designed to be fitted on top of the cover slabs and gullies. By fitting our seating slabs the steel cover can quickly be brought up to the cover level required without the need for time to be spent on brickwork. Seating Slabs are manufactured to requirements of BS EN 1917, BS 5911-3.

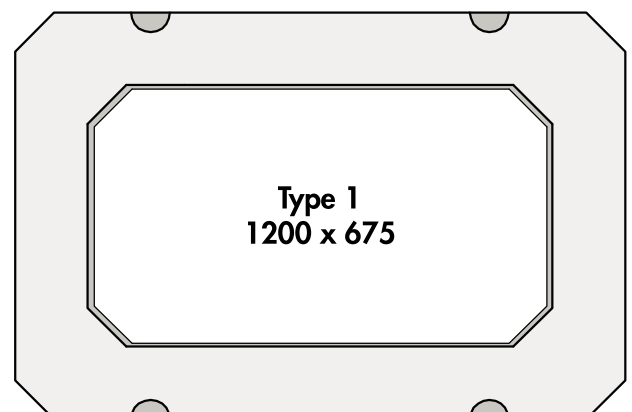
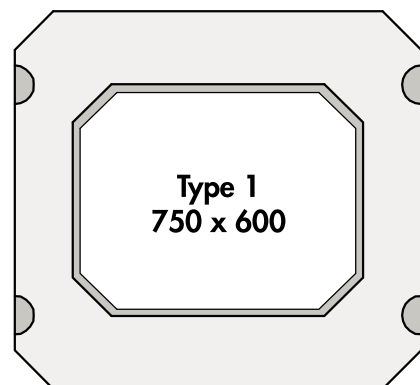
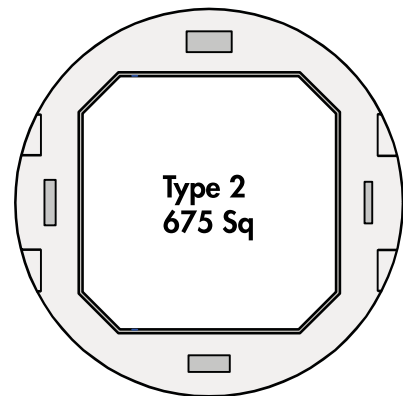
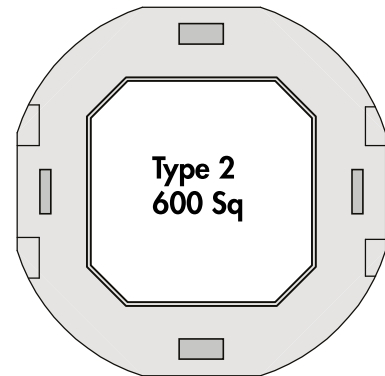
SEATING & LOTHIAN SLABS

Opening	Depth	Weight	Dimensions
mm	mm	KG	mm
Type 2 600 Square	65	80	1000 Round
Type 2 675 Square	65	70	1050 Round
Type 1 600 Round	65	115	1050 x 975
Type 1 675 Round	65	105	1050 x 975
Type 1 1200 x 675	65	135	1575 x 1050
Type 1 600 Square	65	105	1050 x 975
Type 1 750 x 600	65	86	1050 x 975
Type 1 750 x 750	65	85	1050 x 975
*Lothian Slab - 675 Square	150	292	1155 x 1155



ADVANTAGES

- Designed to replace engineering bricks
- Simple & fast installation
- Compressive strength equal to Class B engineering brick
- More cost effective than brickwork



MANHOLE ACCESSORIES

STEPS & LADDER STEPS

Steps can be supplied fitted or loose in all our manhole products. Manufactured to EN 13101: 2002 Type D Class 1 and BS EN 13101. Made with an outer grip to ensure safe movements when inspection is required.

Ladder Steps can also be supplied fitted or loose in all of our manhole products. Manufactured to BS EN 13101. Supplied with rolls of stringer and red caps upon request for manholes deeper than 3m.

A hand-held entry pole system is also available, allowing safer access to the fitted steps of the manhole chamber.

Modular Manhole Ladder can be supplied as an alternative to ladder steps. The Modular ladder system has been fully tested to BS 14396 by Lloyds British PLC and is CE marked.

*Installation spec available at www.traceyconcrete.com



Steps Fitted



Ladder Steps with Stringer



JOINTING STRIP & CONSEAL

A wide range of jointing strips (elastomeric joint-seal) are available for all sizes of manhole rings made to spec EN681.

Easily installed jointing strip is designed to seal standard manhole chambers fast and efficiently.

Sizes Available	To Suit Manhole Sizes
22mm x 22mm x 4.5m	DN900 - 1500mm
22mm x 44mm x 4.5m	DN1800 - 2400mm
12mm x 120mm x 6m	DN2700 - 4000mm

PRIMER - 5L

Primer is used for priming the joints of precast concrete manholes, inspection chambers prior to the applications of jointing strip.

GULLIES & GULLY SEATING SLABS

375 & 450

Road Gullies are manufactured to BS 5911-6 and are BSI Kitemarked. Gullies are supplied with a seal to suit plastic (Forsheda 207 x 20.5) or densleeve (Forsheda 201 x 13).

TRAPPED & UNTRAPPED GULLIES / 375 & 450

Type	Size (A)	Depth (B)	Approx Weight	Outlet
Trapped / Untrapped	mm	mm	KG	mm
Untrapped	375	750	180	150
Trapped	375	750	200	150
Trapped	450	750	250	150
Trapped	450	900	285	150
Trapped	450	1050	290	150
Gully Seating Slab	750 x 650	100	80	450
Horseshoe Seating Slab	650 x 600	100	44	450

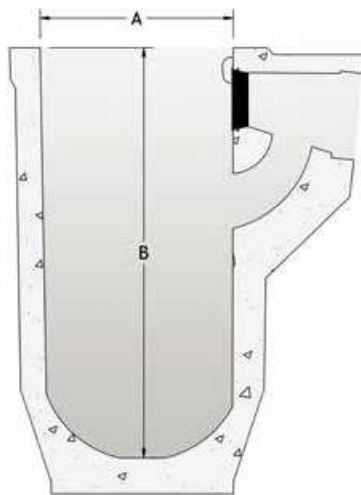
ADVANTAGES

- Seal cast in to prevent onsite damage
- Rodding eye closure recessed into concrete
- Light weight design for lower carbon footprint
- Eliminates discharge of oil
- Gully grating and cover available



Gully Seating Slab

Horseshoe Gully Seating Slab

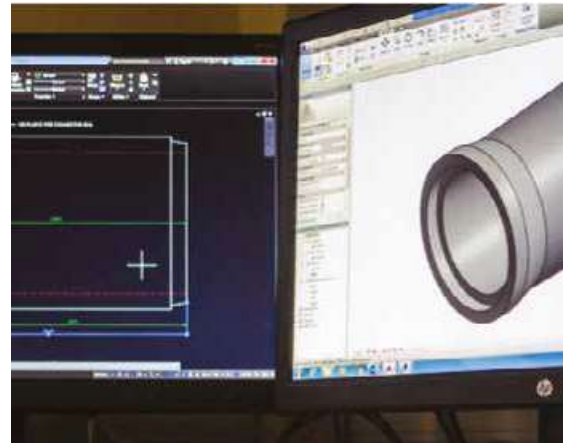


Trapped 450 x 900 Gully



PRECAST ATTENUATION SYSTEMS

Tracey Concrete manufacture and design attenuation water storage systems using our S&S Pipe range offering superior strength than other options on the market. Designed to suit the clients specifications we can manufacture each bespoke system to suit any capacity and area.



Our concrete attenuation systems can include bespoke products such as stop end bends, side entry manholes and spigot and socket end wall pipes. These products can either be engineered into an on-line sewer pipe system or utilised off-line as single or multiple stormwater holding tanks.

Internal Pipe ø	mm	DN900	DN1050	DN1200	DN1350	DN1500	DN1800	DN2100
Capacity	m ³	1.59	2.16	2.83	3.58	4.42	6.36	8.65

ADVANTAGES

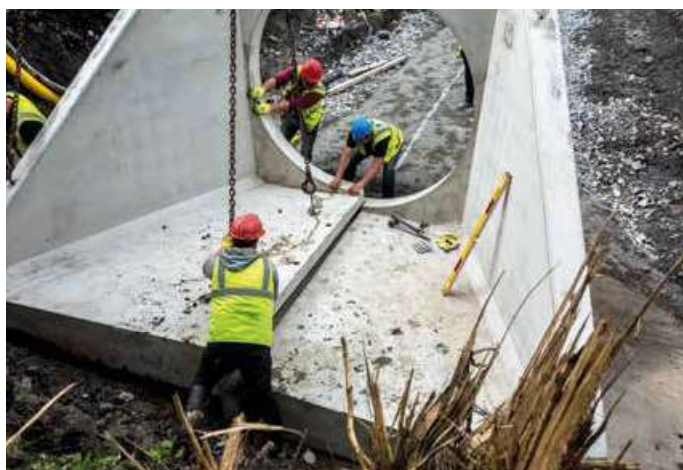
- Systems can be designed to suit the application
- Can be installed under roads and car parks
- No need for fabrication onsite or external contractors
- Long term solution



PRODUCT LIFTING EQUIPMENT

All precast concrete products manufactured by Tracey Concrete are designed to be offloaded & installed safely when using the specified equipment - see table below. If you require the correct lifting equipment, please contact our sales department.

Please ensure all lifting equipment is ordered with or is on-site ready for when the products are delivered.



This table is subject to change, if you have any questions regarding the lifting of our products please contact us. Please note it is the contractors responsibility to ensure all lifts are safe and compliant with legal requirements.

PRODUCT LIFTING EQUIPMENT

Product	Lifters	Details
		<u>Spigot & Socket Pipe</u> Spherical Lift Shackles DN1200+ - 2No 10T
		<u>Manhole Ring</u> 38mm Lifting Pins DN900 - 2700 3No 38mm DN3000 - 3600 4No 38mm
		<u>Perfect Base™</u> Spherical Lift Shackles DN1200 - 3No 2.5T DN1500 - 3No 5T DN1800/2100- 3No 7.5-10T
		<u>Manhole Cover Slab</u> Cast in Loops See page 25 for Product Weights
		<u>Headwall</u> Small - Medium - 4No RD24 Large - 4No RD30 XL - XXL - 3No 10T Spherical Lift Shackles
		<u>Watertight Manhole Ring</u> Spherical Lift Shackles DN1200 - 3No 2.5T DN1500 - 3No 5T
		<u>Catchpit</u> Cast in Loops See Page 40-41 for Product Weights

Certified lifting equipment is available for all our precast products.
Please download our lifting guides at www.traceyconcrete.com or email headoffice@traceyconcrete.com for a copy.