



British Precast Drainage Association

Publications from the British Precast Drainage Association (BPDA):

BPDA was formed in 2017 from the integration of the Concrete Pipeline Systems Association (CPSA) and the Box Culvert Association (BCA).

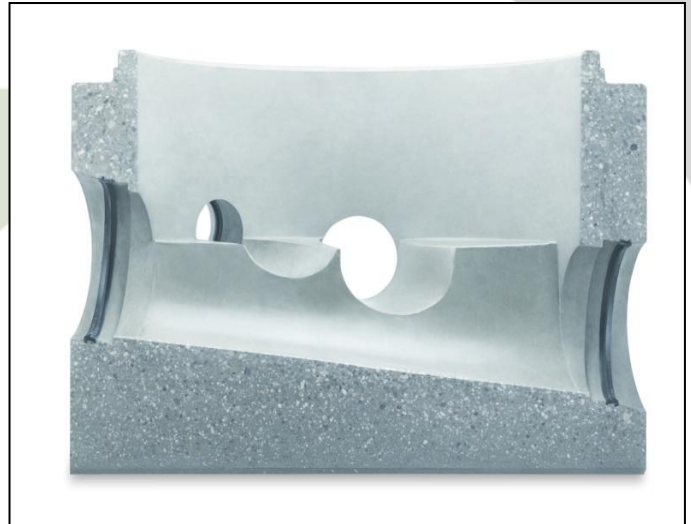
Information published by both CPSA and BCA will be rebranded and replaced as BPDA in due course. New material will be branded BPDA.

All CPSA and BCA web traffic will be redirected to the new BPDA web site at www.precastdrainage.co.uk

The manhole system the drainage industry has been waiting for ...

The concrete pipeline systems industry has introduced a new precast manhole system packed with many benefits that will satisfy designers, contractors and operators alike.

- Reduced construction time
- Decreased installation costs
- Improved safety on site
- Superior quality, factory made
- Watertight –reduced running costs at treatment works and pumping stations
- No concrete backfill/surround required
- Reduced carbon footprint



Traditionally, manhole construction has required the base to be formed in-situ where building of the channel, connections and benching occurs in the trench, often in confined spaces with wet and unpleasant conditions. The process can take around 40 hours per manhole and is not always successful, particularly in terms of leakage where egress of waste water can lead to contaminated groundwater and ingress can contribute to the common problem of overloaded sewer networks plus increased energy usage, carbon emissions and running costs at treatment works and pumping stations.

The new manhole system comprises a circular precast concrete base unit, complete with channel and benching with predetermined combinations of inlet(s) and outlet and new chamber rings with watertight flexible joints and no lifting holes, thereby removing points of possible leakage.

Both base units and chamber rings are made with thicker, stronger walls. The robust design means that the requirement for a concrete surround is eliminated, unless specifically required. The excavation is backfilled sooner and there is less need for men to work in confined spaces. This reduces time spent in the excavation, further improving site safety and reducing installation costs.



Installation of the whole system is speedy and efficient. Once in position, wet trades are eliminated, formation of benching on site and sealing of lifting holes is avoided and follow-up operations can start immediately. Field trials indicate that time savings of over 30% can easily be achieved, particularly when installed without a concrete surround.

The system also yields environmental advantages as less concrete is used, there is less waste and less excavated material is disposed to landfill. An annual saving of over 15,000 tonnes of CO₂ is estimated in the UK if all manholes manufactured

by members of the Concrete Pipeline Systems Association (CPSA) changed to the new precast base system.

The quality of material and finish is well above that normally achieved on site and the full system is manufactured under factory conditions by third party certified companies to ISO 9001 quality management system. Products are Kitemarked to BS EN 1917:2002 and BS 5911-3:2010 Concrete Manholes and Inspection Chambers and tested under laboratory conditions.

UK Water Companies have embraced the new circular precast manhole base systems and given their acceptance to use the design on new projects in lieu of traditional in-situ construction. Incorporation as a typical detail is expected within the latest publication of Sewers for Adoption.



Formation to cover slab in 25 minutes

See YouTube videos:

CPM Group http://www.youtube.com/watch?v=kUVF5HBd_TY

F P McCann <http://www.youtube.com/watch?v=QlsfbA0fs14>

Stanton Bonna <http://www.youtube.com/watch?v=wRMi0Sw65IA>

For further information please contact your usual supplier

Buchan Concrete Solutions

Tel: 01606 843 500

CPM Group

Tel: 0117 981 2791

F P McCann

Tel: 01530 240 000

Milton Precast

Tel: 01795 425 191

Stanton Bonna

Tel: 0115 944 1448

Concrete Pipeline Systems Association – 60 Charles Street, Leicester, LE1 1FB

Tel: 0116 253 6161

Email: mail@concretepipes.co.uk

www.concretepipes.co.uk