



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

PIPE AND MANHOLE LIFTING SOLUTIONS A SITE GUIDE FOR CONTRACTORS



CONCRETE PIPELINE SYSTEMS ASSOCIATION
CPM GROUP FP MCCANN STANTON BONNA MILTON PRECAST

Loading and offloading of vehicles is an activity where considerable Health & Safety guidance and care is needed. It is reported that more than 75% of major fall-from-vehicle incidents occur during loading and unloading activities. The Health and Safety Executive estimated in 2004/05 that the human and economic cost of reported fall from-vehicle incidents was over £36.5 million.

Members of CPSA have been active in developing innovative product handling and installation equipment that limits the need for operatives working at height on the back of vehicles during loading and offloading and helps improve the safety, ease, speed, cost and efficiency of product handling and installation.

*This Site Guide for Contractors provides information on suitable products for lifting and installing concrete drainage products with safety and site productivity in mind. The guide highlights three main pieces of equipment: The **Concrete Pipe Lifter** and Probst's **SVZ** and **RKIII Manhole Lifters**.*

Concrete Pipe Lifter

The Concrete Pipe Lifter is an ingenious, simple-to-use system designed to improve site safety and increase efficiency during the lifting and installation of precast concrete pipes. It is connected to an excavator via a quick hitch attachment and uses no motorised parts making it easy to maintain. It can be used to lift concrete pipes up to DN1200.

- Up to 50% reduction in installation time
- No operative required to work at height during offloading
- Ground workers not required in trench during installation
- Reduced costs through time and labour savings
- No additional energy or hydraulic links required when installing a pipe.



How to use

- Perform appropriate pre-work checks to ensure all equipment is working properly and has valid operating certificates, where required.
- Connect Pipe Lifter to excavator via quick hitch coupling, ensuring correctly attached and locked in position.
- Fully insert the long lifting arm horizontally into the barrel of the pipe and carefully raise to make contact with the internal crown. When installing pipes, ensure it is lifted from the socket end.
- The clamp arm will slowly press down onto the top of the pipe and hold it in position.
- The pipe may now be lifted and transferred to a suitable storage location or placed into the prepared trench and jointed following the application of an approved joint lubricant to the pipe spigot if required for the design of the pipe joint. Care should be taken to avoid lubricant coming into contact with the lifting area as this can cause the pipe to slip.
- Depending on the weight of pipe, depth of installation and lifting capacity of site plant, the pipe may be tilted up to 30 degrees from horizontal and manoeuvred between struts on trench support systems. It can also be used to push the pipe home to ensure formation of the correct joint gap.
- Check limits of use before operation including lifting capacity, compatibility of trench support system with the Pipe Lifter to ensure that struts do not interfere with the removal of the lifter from the pipe.
- **When installing a pipe, no personnel should be in the working area or come into contact with the Pipe Lifter, excavator or any pipe in transit.**

Maintenance

- Only use recommended lock nuts and ensure that all bolts are properly secured.
- Apply grease through the grease nipples only.
- Check rubber elements regularly for damage. If damage occurs, replace with approved new parts.
- Always check the Pipe Lifter before and after use for damage.



Specification

- Suitable for all precast concrete pipes to BS 5911-1 and BS EN 1916 in the size range DN300 . DN1200.
- Tested S.W.L. 3700 kg.
- Maximum length 2500 mm.
- Pipe Lifter weight approx. 600 kg.
- Available from various suppliers including CPSA members (*See the last page*).



SVZ UNI / RKIII Manhole Lifters

The SVZ and RKIII manhole lifters are designed to lift manhole rings DN900 to DN1800 and DN2100 to DN3000 respectively using an excavator.

- The two lifters are **easy to use** and both make the lifting process an easy **one man operation**.
- The main advantage of the lifters is that there is **no need for operatives to be on the bed of vehicle whilst unloading**.
- The Manhole Lifter is very adaptable, it can be adjusted to suit each diameter in seconds.



For the SVZ UNI lifter, adaptors are required to lift DN1800 chamber rings.

- The Manhole Lifter is capable of handling chamber rings 250mm to 1000mm in depth.



Pipe and Manhole Lifter contacts

Pipe lifters available to buy from

- MGF Ltd. Tel: 01942 402700. www.mgf.ltd.uk
- Klepp Mek AS. Tel: +47 51 788750. www.kleppmek.no

Pipe Lifters available to hire from

- MGF Ltd. Tel: 01942 402700. www.mgf.ltd.uk

Small Diameter SVZ manhole lifter available to buy from

- Probst Handling. Tel: 01939 235325. email sales@probst-handling.co.uk

Small diameter SVZ manhole lifter available to hire from

- MGF Ltd. Tel: 01942 402700. www.mgf.ltd.uk
- Gap Group. Tel: 0141 225 4600, 07734 496 471 (Paul Glover). Email: p.glover@gap-group.co.uk

Large diameter RKIII manhole lifter available to buy from

- Probst Handling. Tel: 01939 235 325. Email: sales@probst-handling.co.uk
Tel 01939 235325

Large diameter RKIII manhole lifter available to hire from

- MGF Ltd. Tel: 01942 402700. www.mgf.ltd.uk

For further information please contact your pipe and manhole supplier:

CPM Group

0117 981 2791

F P McCann

01530 240 000

Milton Precast

01795 425191

Stanton Bonna

0115 944 1448

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

0116 253 6161

www.concretepipes.co.uk

mail@concretepipes.co.uk

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