

No. 2 – A Guide for Builders' Merchants and Purchasers of Concrete Pipeline Systems

Introduction

On 27 September 2004 new European Standards were introduced for the manufacturing of concrete pipes and manhole components in the UK.

There are a number of changes from the previous British Standards many of which are in procedures, technical references, testing and other minor matters.

Purchasers should be assured there are no compromises on product quality or performance between products manufactured prior to the introduction of these new standards and those currently being made. Indeed the whole transition to the new Standards has been achieved with the full agreement of the British Standards Institution and their Inspectorate has monitored all the Kitemarked manufacturers to ensure full compliance.

There are however some changes requiring the attention of purchasers. In this Guide we detail what these are and how they may affect your purchasing of precast concrete pipes, manholes, soakaways and cover slabs.

The Standards

The previously used British Standards BS5911: Part 100 for Pipes and BS 5911: Part 200 for Manholes, Soakaways and Cover Slabs are superseded. Each product range is now manufactured to the requirements of the new European Standard (designated BS EN) and a British Standard (known as the complementary Standard).

- For all pipes with flexible joints, reinforced and unreinforced and including jacking pipes, the Standards are: BS EN 1916:2002 and BS 5911-1:2002.
- For manholes and soakaways (reinforced and unreinforced) and cover slabs, the Standards are: BS EN 1917:2002 and BS 5911-3:2002

General Issues

- There is no longer a Sulfate Resistance Class 4 designation and reference should be made to the Building Research Establishment Digest SD1, where the requirement is now for a Design Chemical Class. Manufacturers will specify their own DC Class, and this is likely to be DC-4.
- Manufacturers can select whether to operate a quality assurance scheme as detailed in EN1916 and EN1917, or to the requirements of BS EN ISO 9001:2000. Both approaches are satisfactory and the British Standards Institute has issued Kitemark licences accordingly. companies represent almost 100% of the concrete drainage industry.

Pipes and Fittings

- The sizes of pipes remain as they were in the old Standard.
- The previous strengths of 'L', 'M', and 'H' have been replaced with a single Strength Class 120 for all sizes, which is the equivalent of Class H.

Manholes and Soakaways

- DN900 manholes can only be supplied without steps.
- DN1350 manholes and soakaways are no longer Kitemarked.
- Only double steps can now be used.

Slabs

- DN1350 slabs are no longer Kitemarked.
- Cover slabs with the following openings can be Kitemarked:

All dimensions in mm

DN	COVER SLAB ACCESS				
	600 sq	675 sq	750 x 600	750 sq	1200 x 675
900	✓	✓			
1050	✓	✓		✓	
1200		✓	✓		See Note
1500		✓	✓		✓
1800		✓	✓		✓
2100		✓	✓		✓
2400		✓	✓		✓
2700		✓	✓		✓
3000		✓	✓		✓

Note: DN 1200 with 1200 x 675 access not manufactured –Water UK recommends that 675 x 675 access should be used. For further details please see the CPSA Technical Bulletin 1 – Manhole Access.

- Reducing and landing slabs can be Kitemarked as in the following table:

All dimensions in mm

DN	REDUCING SLAB ACCESS			LANDING SLAB
	900 dia	1050 dia	1200 dia	900 dia
900				
1050				
1200	✓			
1500	✓	✓		✓
1800	✓	✓	✓	✓
2100	✓	✓	✓	✓
2400	✓	✓	✓	✓
2700	✓	✓	✓	✓
3000	✓	✓	✓	✓

Cover Frame Seating Rings

- All units with a centrally placed hole are now termed '**ADJUSTING UNITS**'.
- The 600 x 600mm eccentric access seating ring is now called a '**CORBEL UNIT**'.

Summary

It is hoped that this short Information Guide will be a help to those who do not need to know the intricate details of the new European Standards. However with the working knowledge provided, purchasers should have the confidence to address many of the issues that will arise when ordering precast concrete pipeline systems to the new Standards.

It is stressed that there is no change in the inherent quality or strength of UK manufactured concrete pipes and manholes brought about by these changes.

More detailed information is contained in the two CPSA publications:-

- European Standards Information - Guide 1
- Technical Bulletin 1 – Manhole Access.

These can be obtained by contacting the CPSA as below or by visiting the website – www.concretepipes.co.uk

The Technical Department of your usual supplier will also be able to assist with explanations.

For further information please contact your usual supplier:

Buchan Concrete Solutions
01606 843 500
www.buchanconcrete.com

CPM Group
0117 981 2791
www.cpm-group.com

Ennstone Building Products
01952 502 772
www.ennstone.co.uk

F P McCann
01530 240 000
www.fpmccann.co.uk

Hughes Concrete
01538 380 500
www.hughesconcrete.co.uk

Milton Precast
01795 425 191
www.miltonprecast.com

Stanton Bonna
01159 441 448
www.stanton-bonna.co.uk

Concrete Pipeline Systems Association
60 Charles Street Leicester LE1 1FB
Tel: 0116 253 6161 Fax: 0116 251 4568
Email: mail@concretepipes.co.uk
Web: www.concretepipes.co.uk

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