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BS 5911-3:2022



BSI Standards Publication

Concrete pipes and ancillary concrete products

Part 3: Concrete manholes, inspection chambers and
soakaways (complementary to BS EN 1917:2002) —
Specification

bsi.

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Published by BSI Standards Limited 2022

ISBN 978 0 539 12960 1

ICS 23.040.50; 93.030; 91.100.30

The following BSI references relate to the work on this document:

Committee reference B/505

Draft for comment 22/30412764 DC

Amendments/corrigenda issued since publication

Date	Text affected
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Foreword

Publishing information

This part of [BS 5911](#) is published by BSI Standards Limited, under licence from The British Standards Institution, and came into effect on 31 August 2022. It was prepared by Technical Committee B/505 *Wastewater engineering*. A list of organizations represented on this committee can be obtained on request to the committee manager.

Supersession

This part of [BS 5911](#) supersedes BS 5911-3:2010+A1:2014 and BS 5911-4:2002+A2:2010, which are withdrawn.

Information about this document

This is a full revision of the standard, and introduces the following principal changes:

- the inclusion of unreinforced and reinforced concrete inspection chambers, previously specified in [BS 5911-4](#);
- the types of cement and cementitious content is required to conform to the requirements of BS 8500-1:2015+A2:2019; and
- the introduction of additional manhole strength class.

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The provisions of this document are presented in roman (i.e. upright) type. Its requirements are expressed in sentences in which the principal auxiliary verb is "shall".

Commentary, explanation and general informative material is presented in smaller italic type, and does not constitute a normative element.

Where words have alternative spellings, the preferred spelling of the Shorter Oxford English Dictionary is used (e.g. "organization" rather than "organisation").

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1 Scope

BS EN 1917:2002 specifies requirements and describes test methods for precast concrete manholes and inspection chambers of circular and rectangular (with or without chamfered or rounded corners) or elliptical cross-section, unreinforced, steel fibre and reinforced, with nominal sizes or nominal lengths not exceeding DN 1250 or LN 1250 respectively. The intended use of BS EN 1917:2002 is to permit access to, and to allow aeration of, drain or sewer systems for the conveyance of sewage, rainwater and surface water under gravity or occasionally at low head of pressure, mainly installed in areas subjected to vehicular and/or pedestrian traffic.

This part of [BS 5911](#) specifies complementary requirements to those in BS EN 1917:2002 for unreinforced and reinforced concrete manholes and inspection chambers of circular and rectangular cross-section (with or without chamfered or rounded corners), as provided for in BS EN 1917:2002, i.e. units with nominal sizes or nominal lengths not exceeding DN 1250 or LN 1250, respectively. Full requirements for unreinforced and reinforced circular concrete manholes with nominal sizes greater than DN 1250, but not exceeding DN 3000, are also specified. The manholes are intended to be installed in carriageways of roads (including pedestrian streets), hard shoulders and parking areas for all types of road vehicles, though provision is also made for units subject to lighter traffic loading. Requirements for base units, elastomeric load bearing seals, soakaways, landing slabs and corbel slabs are also specified. This part also specifies requirements for inspection chambers less than or equal to DN 1000 or LN/WN 1000/675 intended for installation in both areas outside the highway where vehicle loading is restricted and where they are subject to vehicular traffic.

NOTE 1 Rectangular manholes greater than LN 1250 are to be treated as structures and should be accompanied by appropriate calculations in accordance with the relevant Eurocodes.

NOTE 2 BS EN 752, BS EN 1295-1 and BS EN 1610 relate to the planning, design, installation and testing of drains and sewers.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes provisions of this document¹⁾. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

[BS 3123](#), *Specification for spring calipers and spring dividers*

[BS 4449](#), *Steel for the reinforcement of concrete — Weldable reinforcing steel — Bar, coil and decoiled product — Specification*

[BS 4482](#), *Steel wire for the reinforcement of concrete products — Specification*

[BS 4483](#), *Steel fabric for the reinforcement of concrete — Specification*

[BS 4484-1](#), *Specification for measuring instruments for constructional works — Part 1: Metric graduation and figuring of instruments for linear measurement*

BS 8500-1:2015+A2:2019, *Concrete — Complementary British Standard to BS EN 206 — Part 1: Method of specifying and guidance for the specifier*

BS EN 197-1, *Cement — Part 1: Composition, specifications and conformity criteria for common cements*

BS EN 450-1, *Fly ash for concrete — Part 1: Definition, specifications and conformity criteria*

¹⁾ Documents that are referred to solely in an informative manner are listed in the Bibliography.