

Guide to

**Selection and use of gully tops
and manhole covers for
installation within the
highway**

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Committees responsible for this British Standard

The preparation of this British Standard was entrusted by Technical Committee B/505, Wastewater Engineering, to Subcommittee B/505/4, Manhole covers and other road fittings, upon which the following bodies were represented:

- British Foundry Association
- British Plastics Federation
- British Precast Concrete Federation
- Chartered Institute of Water and Environmental Management
- Clay Pipe Development Association
- Concrete Pipe Association
- County Surveyors Society
- Ductile Iron Pipe Committee
- Fabricated Access Covers Association
- Galvanisers Association
- Highways Agency
- Institute of British Foundrymen
- Institute of Building Control
- Institute of Civil Engineers (Works and Highways Committee)
- London Technical Advisors Group
- METCOM
- Society of British Water Industries
- Water Companies Association
- Water Services Association of England and Wales

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Foreword

This British Standard has been prepared by Subcommittee B/505/4. It is to be used in conjunction with BS EN 124 : 1994 *Gully tops and manhole tops for vehicular and pedestrian areas — Design requirements, type testing, marking, quality control*, which superseded BS 497 : Part 1, withdrawn in June 1995.

This standard is not a substitute for BS EN 124.

Although BS EN 124 purports to be a performance standard, it is not yet comprehensive enough in its requirements for product performance. It also incorporates certain minimal dimensional requirements which, being minimal, may not necessarily ensure that the product is fit for its purpose in all traffic conditions.

The publication of BS EN 124 has resulted in a wider selection of products being available, and this standard has been prepared as an aid to those who select or use these products. When quoting BS EN 124 in contract, additional information will be required to obtain the appropriate product, and a table of purchaser's options is shown in annex A.

BS EN 124 : 1994 requires mandatory third party assessment and certification, and unless a product carries a third party certification mark it will be deemed not to conform. The published UK view is that whilst third party certification may be recommended in a standard, it should not be a mandatory aspect of a product specification. This view is now supported by CEN policy, which requires that a CEN Technical Board dispensation be granted before mandatory third party certification is included in a standard. The European committee responsible for revising EN 124 will seek such a dispensation if it is decided to retain this requirement.

Compliance with a British Standard does not of itself confer immunity from legal obligations.

Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, pages 1 to 10, an inside back cover and a back cover.

Guide

1 Scope

This British Standard gives guidance on the selection of gully tops and manhole tops with a clear opening measuring up to 1000 mm as specified in BS EN 124 : 1994 for installation within the highway.

2 References

2.1 Normative references

This British Standard incorporates, by dated or undated reference, provisions from other publications. These normative references are made at the appropriate places in the text and the cited publications are listed on the inside back cover. For dated references, only the edition cited applies; any subsequent amendments to or revisions of the cited publication apply to this British Standard only when incorporated in the reference by amendment or revision. For undated references, the latest edition of the cited publication applies, together with any amendments.

2.2 Informative references

This British Standard refers to other publications that provide information or guidance. Editions of these publications current at the time of issue of this standard are listed on the inside back cover, but reference should be made to the latest editions.

3 Definitions

For the purposes of this British Standard, the definitions given in BS EN 124 apply, together with the following.

3.1 area of waterway

The area of a gully grating through which water can pass.

3.2 ductile iron

Spheroidal or nodular graphite cast iron.

3.3 highway

Area that includes some or all of the following features: carriageway, cycleway, footway, verge, hard shoulder, hard strip and central reservation.

3.4 specifier

Person who has responsibility for the design and/or maintenance of works, or is responsible for ordering the product.

3.5 fine cast

A fettled casting without any coating.

3.6 grey iron

Flake graphite cast iron.

3.7 keyway

A hole in the top of the manhole cover suitable for the insertion of an appropriate lifting key.

3.8 clear area

The maximum unobstructed area through the frame (including the area between seats).

4 Classification

Manhole covers and gully gratings previously made in accordance with BS 497 : Part 1 (withdrawn) were graded in relation to the test load. However, in that standard the sizes of the test blocks used for manhole covers were different to the sizes of the blocks used for gully gratings. BS EN 124 uses a common classification system for all products, but the test block sizes are different to those used in BS 497 : Part 1. A direct comparison between BS 497 : Part 1 grades and BS EN 124 classes is therefore not possible due to the different testing regimes.

A broad comparison is set out in table 1.

Table 1. Comparison of classification

BS EN 124		BS 497 (withdrawn)	
Class	Test load (all materials) kN	Grade	Test load kN
		C	10
A 15	15		
B 125	125		
		B	150
C 250	250		
		A	350
D 400	400	D	400
E 600	600		
F 900	900		

5 Place of installation

(See clause 5 of BS EN 124 : 1994.)

The selection of the appropriate class of product to suit the site conditions is the responsibility of the specifier. Guidance on recommended usage in the United Kingdom is given in table 2.

NOTE. Where there is any doubt, a stronger class should be selected.