

Manhole Access

This Technical Bulletin provides information on the agreed position of the water companies and the manufacturers of precast concrete manhole systems regarding manhole access. Based on the new European Standard BS EN 1917:2002, the UK Complementary Standard BS 5911 Part 3 and the current Sixth Edition of Water UK's "Sewers for Adoption". It concentrates on the position and sizes of openings in cover slabs and the means of access.

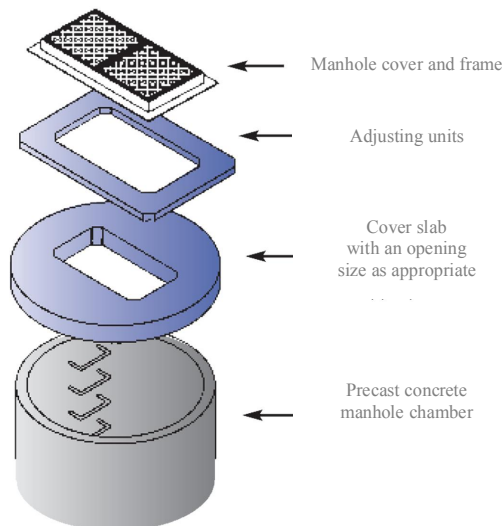
Table 1: Positions and sizes of openings in cover slabs

Shaft/Chamber Size DN	Manhole less than 1.5m depth (Ground level to pipe soffit)	Manhole greater than or equal to 1.5m depth (Ground level to pipe soffit)
900	675 x 675 central	675 x 675 central
1050	750 x 750 central	675 x 675 eccentric
1200	675 x 675 eccentric*	675 x 675 eccentric
1500	1200 x 675 central	675 x 675 eccentric
1800-3000	1200 x 675 eccentric	675 x 675 eccentric

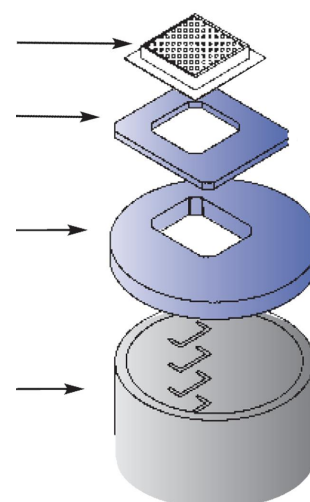
* 1200 x 675 specified in BS EN 752-3 but not recommended

Note: All measurement in mm unless otherwise specified

Depths less than 1.5m



Depths greater than or equal to 1.5m



- Cover slabs with 675mm x 675mm openings are now kite marked products.
- For a 600mm x 600mm opening at ground level, an adjusting unit can be used to reduce the size of the opening.
- DN 900 manhole shaft sections are the minimum size permitted, with access only by winch, not steps or ladder.
- As DN 1200 manholes meet the requirements of all applications it is likely to become the shaft size of preference in the future.
- With the publication of the European Standard for concrete pipeline products, manholes with double steps have become the standard with single steps having been phased out from October 2004.

Table 2: Minimum clear access opening sizes and requirements for fitting

	Standard Access (Sewer Diameter (mm)) Manholes Types A & B only			Manhole Fitting Requirements All Manhole Types			Non-Man Entry Chambers Accepted?
	150-374	375-1074	1075 or greater	Double Encapsulated Step Rungs	Safety Chains (Materials)	Ladders (230mm Clearance Wall to Ladder)	
Sewerage Undertaker							For Sewer Manholes
Anglian Water	600 x 600			Less than 3 m	600mm or greater (Stainless Steel or Polypropylene Rope)	Greater than 3 m	Yes
United Utilities				Less Than 3 m	525mm or greater (Stainless Steel)	Greater than 3 m (Stainless Steel)	No
Yorkshire Water				Less than 6 m	No	Greater than 6 m	
Thames Water				Less than 3 m	900mm or greater	Greater than 3 m	
Severn Trent Water				Less than 3 m	No	Greater than 3 m	
Dwr Cymru Welsh Water				No	600mm or greater (Hooks Only)	No	
Northumbrian Water	675 x 675			Less than 3 m	600mm or greater	Greater than 3 m	
Southern Water				No	No	No	
South West Water				Less than 3 m	375mm or greater	Greater than 3 m	
Wessex Water				Less than 6 m	600mm or greater (Hooks Only)	Greater than 6 m	

NOTE: Severn Trent also require min 675x675 access to chambers fitted with a ladder or flow control device.

Table 2 covers most circumstances and is a simplification of the information in Sewers for Adoption, Sixth Edition, which should be referred to if greater detail is required.

Water UK

This Technical Bulletin has been endorsed by Water UK whose members will utilise the standard opening size in cover slabs of 675mm x 675mm. Such openings will enable installers the flexibility of using 675mm x 675mm or 600mm x 600mm manhole tops (cover and frame), by using a standard concrete slab in conjunction with an adjusting unit with the appropriate size opening.

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
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NOTE: This document was first published in Autumn 2004