BS 5911-1:2021



BSI Standards Publication

Concrete pipes and ancillary concrete

Part 1: Unreinforced and reinforced concrete pipes (including jacking pipes) and fittings with flexible joints (complementary to BS EN 1916:2002) – Specification



BS 5911-1:2021 BRITISH STANDARD

Publishing and copyright information

The BSI copyright notice displayed in this document indicates when the document was last issued.

© The British Standards Institution 2021

Published by BSI Standards Limited 2021

ISBN 978 0 539 16553 1

ICS 23.040.50; 91.100.30

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

Committee reference B/505

Draft for comment 21/30412760 DC

Amendments/corrigenda issued since publication

Date Text affected

Contents		Page	
	Foreword	iii	
1	Scope	1	
2	Normative references	1	
3	Terms and definitions	2	
	Figure 1 — Typical geometric form for an egg-shaped bore	3	
4	Symbols	3	
	Table 1 — Symbols	3	
5	General requirements	3	
5.1	Application	3	
5.2	Concrete (4.2) – composition	4	
5.3	Finish (4.3.2)	4	
5.4	Geometrical characteristics (4.3.3)	4	
	Table 2 — Nominal sizes and tolerances of units with a circular bore, for use in a trench	5	
	Table 3 — Nominal sizes and tolerances of egg-shaped units	6	
	Table 4 — Nominal sizes, internal manufacturing diameter and tolerances of jacking pipes	6	
	Table 5 — Tolerances on the squareness of ends of jacking pipes	7	
5.5	Durability of joints (4.3.4.2)	8	
5.6	Crushing strength (4.3.5)	8	
	Table 6 — Minimum crushing loads for strength class 120 units with a circular bore for use		
	in a trench	8	
	Table 7 — Minimum crushing loads for strength class 150 egg-shaped units	9	
	Table 8 — Minimum crushing loads for strength class 120 jacking pipes	10	
5.7	Resistance to high pressure jetting	10	
5.8	Lifting anchorages	10	
5.9	Bends (4.3.3.3)	10	
6	Special requirements - reinforced concrete units (Concrete cover) (5.2.2)	11	
7	Conformity evaluation	11	
7.1	Application	11	
7.2	Finish	11	
7.3	Geometrical characteristics	11	
7.4	Lifting anchorages	11	
8	Marking	11	
Annex A	(normative) British Standards relevant to BS EN 1916:2002	12	
	Table A.1 — British Standards relevant to BS EN 1916:2002	12	
Annex B	(informative) Information to be supplied in an enquiry or order	12	
	Table B.1 — Information to be supplied in an enquiry or order	13	
A			
Annex C	(normative) Surface finish tests	13	
	Figure C.1 — Gauge for assessing surface evenness	13	
	Figure C.2 — Gauge for assessing surface voids	14	
Annex D	(normative) Dimensional tests	14	
	Figure D.1 — Gauge for measuring deviation from straightness	16	
	Figure D.2 — Measurement of internal lengths and diagonals of a jacking pipe	17	
	Figure D.3 — Squareness of ends across a diameter of a jacking pipe	17	
Annex E	(normative) Test for resistance to high pressure jetting	18	
	Figure E.1 — Nozzle geometry	19	
Annex F	(normative) Lifting anchorage pull-out test	21	