CI/SfB
(52.3) ln6

BBA BRITISH BOARD OF AGRÉMENT
TECHNICAL APPROVALS FOR CONSTRUCTION

Designated by Government to issue European Technical Approvals

Hepworth Building Products Ltd
Hazlehead
Stocksbridge
Sheffield S30 5HG
Tel: 0226 763561 Fax: 0226 764827

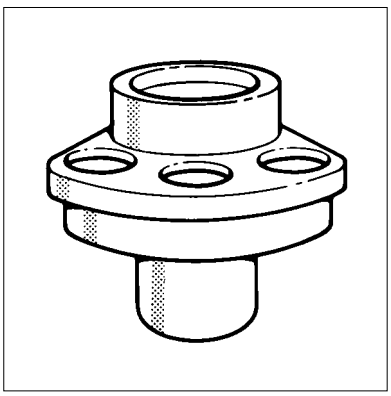
Agrément Certificate No 86/1733
*Second issue**

HEPWORTH SOIL MANIFOLD

Collecteur des tuyaux de renvoi
Verteiler für Abortwasserrohreÿ

Product

- *THIS CERTIFICATE REPLACES CERTIFICATE No 83/1238 AND RELATES TO THE HEPWORTH SOIL MANIFOLD.*
- *The product is for use in above ground drainage systems designed in accordance with BS 5572 : 1978, for installation in soil stacks and enables up to three pipes (of diameters from 32 to 50 mm) to be connected to the stack.*
- *This Certificate does not cover the use of this product with untreated trade effluents.*



Building Regulations

1 The Building Regulations 1985 (as amended) (England and Wales)

The Secretary of State has agreed with the British Board of Agrément the requirements of the Building Regulations to which above ground drainage system components can contribute in achieving compliance. In the opinion of the BBA, the Hepworth Soil Manifold, if used in accordance with the provisions of this Certificate, will contribute to meeting the relevant requirements.

Requirement:	H1	Foul water drainage
Comment:		Hepworth Soil Manifold will: (1) provide adequate hydraulic performance to prevent the loss of water seals in trapped appliances. See section 6 of this Certificate. (2) prevent foul air entering the building. See section 7 of this Certificate. (3) enable access to sanitary pipework for clearing blockages. See section 11 of this Certificate.
Requirement:	Regulation 7	Materials and workmanship
Comment:		The product is acceptable. See section 13 of this Certificate.

2 The Building Standards (Scotland) Regulations 1990

In the opinion of the BBA, the Hepworth Soil Manifold, if used in accordance with the provisions of this Certificate, will satisfy or contribute to satisfying the various Regulations and related Technical Standards as listed below.

Regulation:	10	Fitness of materials
Standard:	B2	Selection and use of materials, fittings, components and other manufactured products
Comment:		The product is acceptable.
Regulation:	24 and 25	Drainage and sanitary facilities
Standard:	Part M	Drainage and sanitary appliances
Comment:		The product will meet the relevant requirements of this Part. See the marked up sections of the *Design Data* part of this Certificate.

3 The Building Regulations (Northern Ireland) 1990 (as amended)

In the opinion of the BBA, the Hepworth Soil Manifold, if used in accordance with the provisions of this Certificate, will satisfy the various Building Regulations as listed below.

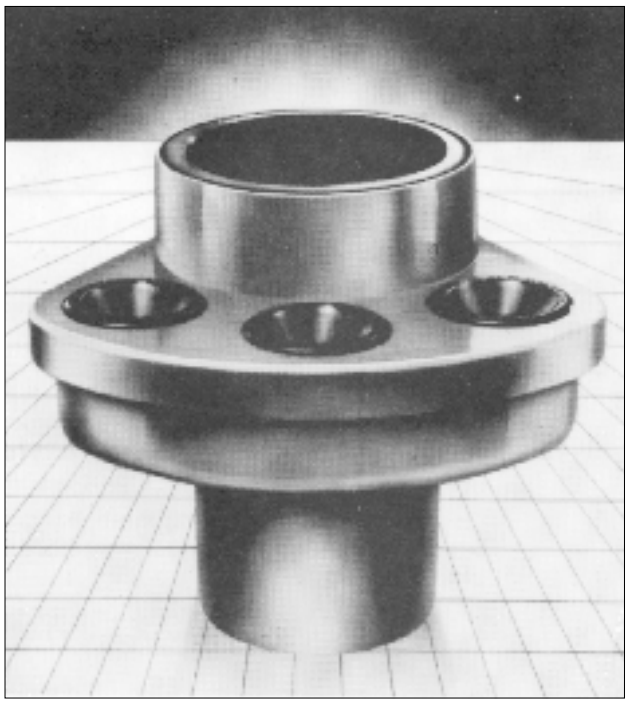
Regulation:	B2	Fitness of materials and workmanship
Comment:		The product is acceptable. See section 13 of this Certificate.
Regulation:	Part N	Drainage
Comment:		The product can satisfy the requirements of Regulation N3 (sanitary pipework). See the marked up sections of the *Design Data* part of this Certificate.

4 Description

4.1 The Hepworth Soil Manifold comprises a uPVC body*, polypropylene blanking plugs and SBR and EPDM ring seals (see Figure 1).

*Available coloured grey, grey-green, terracotta, brown, black or white.

Figure 1 Hepworth Soil Manifold



4.2 The two-component body has at one end a socket fitted with an SBR ring seal and at the other a spigot for connection with a 110 mm diameter pipe and fittings to BS 4514 : 1983 *Specification for unplasticized PVC soil and ventilating pipes, fittings and accessories*. Three inlet ports are provided (see Figure 2), each fitted with a ring seal to BS 2494 : 1990 *Specification for elastomeric seals for joints in pipework and pipelines* and are available in the arrangements shown in Table 1. The type of seal required for the various pipes in use is shown in Table 2.

Table 1 Available ring seal arrangements in the inlet ports (see Figure 2)

Product type	Inlet 1	Inlet 2	Inlet 3
300A	U	U	U
300B	S	U	U
300C	U	U	S

U = EPDM universal ring seal.

S = 50 mm SBR ring seal.

Note: Only those parts fitted with EPDM universal ring seals are supplied with blanking plugs.

Table 2 Type of seal required for various pipes

Type of waste pipe	Type of ring seal
32 mm and 40 mm plastic*	EPDM universal
50 mm plastic*	50 mm SBR
32 mm and 40 mm copper†	EPDM universal
50 mm copper†	50 mm SBR

*Plastic waste pipe to be in accordance with the following standards:

BS 5254 : 1976 *Polypropylene waste pipe and fittings (external diameter 34.6 mm, 41.0 mm and 54.1 mm);*

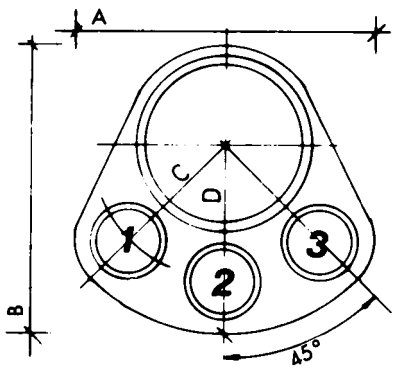
BS 5255 : 1976 *Specification for thermoplastics waste pipe and fittings.*

† Copper waste pipe to be in accordance with the following standards:

BS 2871 : Part 1 : 1971 *Specification for copper and copper alloys. Tubes — Copper tubes for water, gas and sanitation*

BS 2871 : Part 2 : 1972 *Specification for copper and copper alloys.* Tubes — *Tubes for general purposes.*

Figure 2 Inlet layout



Note: Dimensions A = 235 mm
B = 222 mm
C = 106 mm
D = 149 mm

4.3 The uPVC components are injection moulded and solvent welded together at the factory. The SBR and EPDM ring seals are fitted to the PVC body and the (injection moulded) polypropylene blanking plugs are fitted to the inlet ports.

4.4 Continuous quality control is exercised during manufacture and includes visual examination and checks for dimensional accuracy, stress relief and watertightness.

5 Delivery and site handling

5.1 The soil manifolds are supplied in cardboard boxes and should remain packed until required for use.

5.2 Each box is clearly labelled with the manufacturer's code number, denoting the inlet port configuration, and a label bearing the BBA identification mark incorporating the number of this Certificate.

Design Data

6 General

6.1 The Hepworth Soil Manifold is for use in above ground drainage systems designed in accordance with BS 5572 : 1978 *Code of practice for sanitary pipework* for installation in soil stacks and enables up to three pipes (of diameters from 32 mm to 50 mm) to be connected to the stack.

6.2 This Certificate does not cover the use of the system with untreated trade effluents.

6.3 The manifold has been assessed as being suitable for use in the following single stack installations and will not cause a greater loss of water seals in traps than in normal systems to BS 5572 : 1978:

Domestic use

(i) Buildings up to 10 storeys in height when the stack serves one group of appliances* per floor.

(ii) Buildings up to 10 storeys in height when the stack serves two groups of bathroom appliances* per floor.

(iii) Buildings up to four storeys in height when the stack serves two groups of appliances* per floor.

Commercial or public use

(i) Buildings up to eight storeys when the stack serves not more than two groups of appliances* per floor.

(ii) Buildings up to four storeys when a stack serves not more than five groups of appliances* per floor.

*A group of appliances is defined as follows:

In domestic buildings — one WC, one wash basin, one sink and one bath (and/or shower). (Plus one washing machine in buildings up to three storeys).

In public or commercial buildings — one WC and one wash basin (see BS 5572 : 1978, Table 6, Note 4 re urinals).

A group of bathroom appliances consists of one wc, one wash basin and one bath (and/or shower).

Commercial or public congested use

Buildings up to four storeys in height when the stack serves not more than two groups of appliances per floor.

6.4 A 50 mm ventilation stack must be provided for all installations not covered in section 6.3.

7 Airtightness and watertightness

The joints remain airtight and watertight in all normal service conditions and will not be adversely affected by thermal expansion or contraction or angular deflections.

8 Flow characteristics

The Hepworth Soil Manifold, when used in the context of this Certificate, will have adequate flow characteristics and will not cause loss of trap seals in associated appliances (see sections 6.3 and 6.4 of this Certificate).

9 Resistance to chemicals

The soil manifold will be unaffected by the types and quantities of chemicals associated with normal domestic effluents.

10 Resistance to elevated temperatures

The soil manifold has adequate resistance to the temperatures which are likely in normal domestic effluent.

11 Rodding and testing

11.1 Rodding is carried out through the access points provided in branch connections or through WC connections, after removing the WC pan.

11.2 Cleansing can also be carried out through the inlet ports but care must be taken to avoid damaging the seals.

11.3 The manifold is sealed for test purposes using the blanking plugs provided for the inlet ports and standard 110 mm blanking plugs for the stack inlet.

12 Behaviour in relation to fire

The major components of the product are moulded from uPVC complying with the quality requirements of BS 4514 : 1983. Installation must take into account the relevant Building Regulations with regard to fire when the product is installed within a compartment floor or separating floor.

13 Durability

The soil manifold is manufactured from conventional durable materials and, when used in the context of this Certificate, will have a life in excess of 50 years.

Installation

14 Procedure

14.1 Installation must be in accordance with the manufacturer's product guide *Hepworth Soil and Waste*.

14.2 Typical installation layouts are shown in Figure 3.

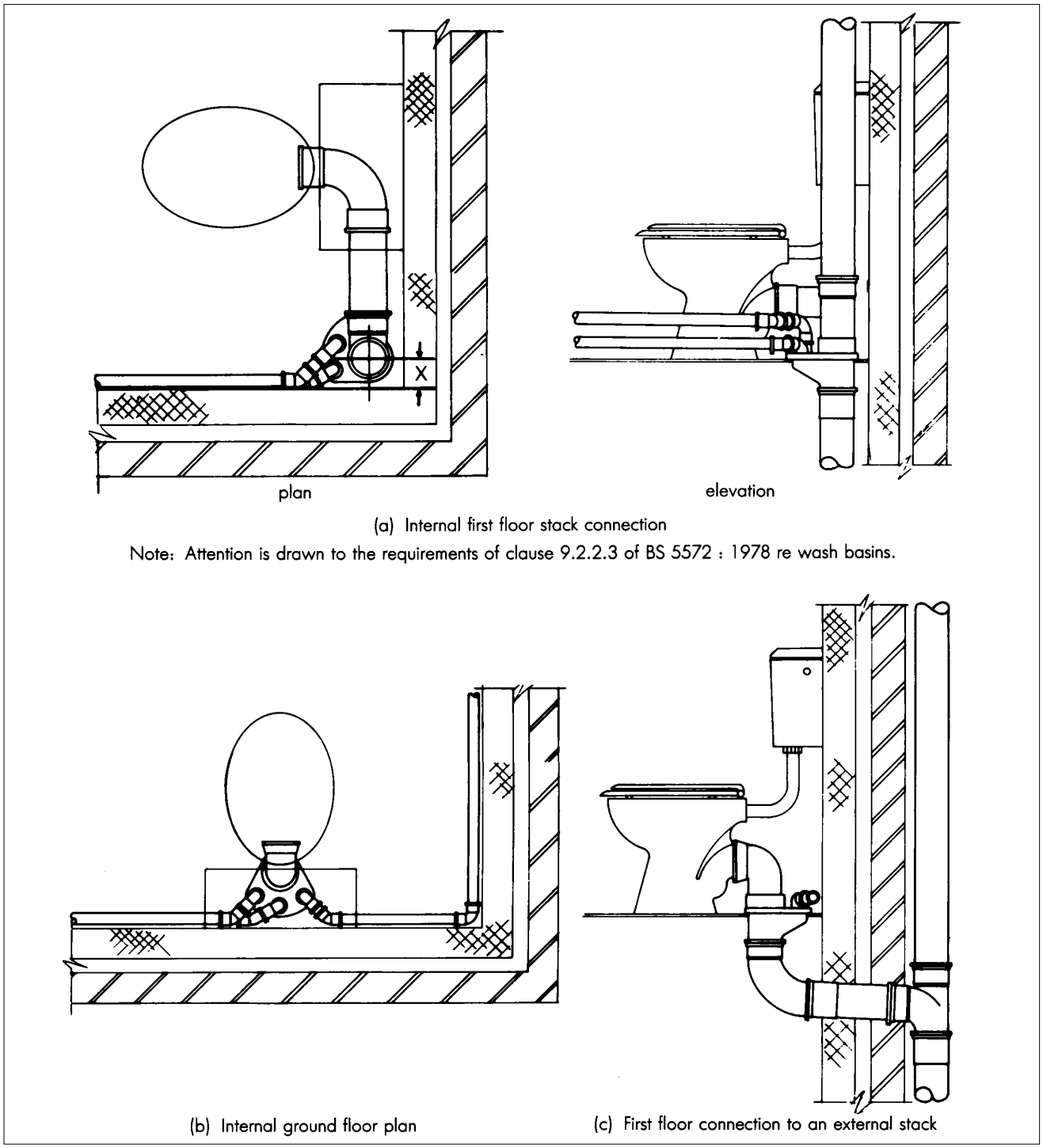
14.3 The soil manifold is connected to pipes and fittings to BS 4514 : 1983.

14.4 Waste pipe connections are made by removing the blanking plug from the appropriate inlet port and inserting the waste pipe or fitting until the stop is reached.

14.5 When the soil manifold is used within a suspended floor construction it is important to ensure that adequate precautions are taken to ensure compliance with the fire resistance requirements of the Building Regulations.

14.6 The manifold must be adequately supported round the top edge (see Figure 4). A paper template is provided to enable the floor to be cut accurately.

Figure 3 Typical installations (adequate fire resistance must be provided where appropriate



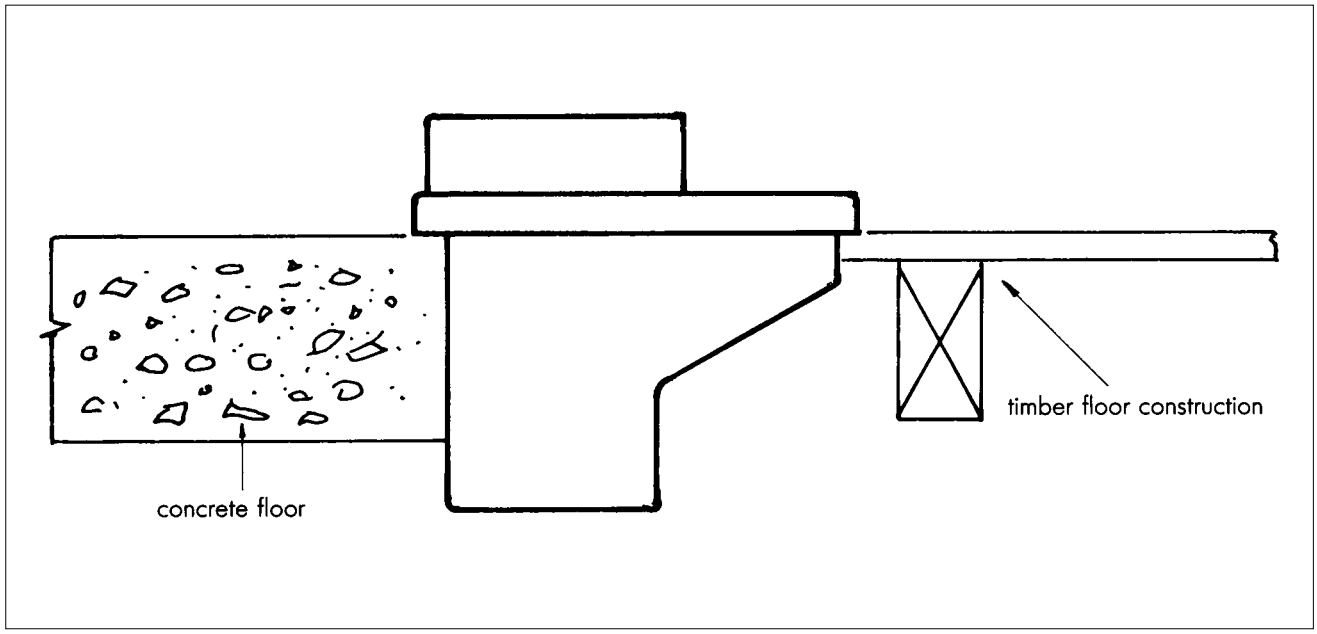
(a) Internal first floor stack connection

Note: Attention is drawn to the requirements of clause 9.2.2.3 of BS 5572 : 1978 re wash basins.

(b) Internal ground floor plan

(c) First floor connection to an external stack

Figure 4 Typical support details



Technical Investigations

The following is a summary of the technical investigations carried out on the Hepworth Soil Manifold.

15 Tests

Tests were carried out to determine:

the effect of thermal cycling
airtightness of the joints
watertightness of the joints whilst subjected to angular deflection
impact resistance
practicability of installation
effect on the pressures in a four storey single stack system designed in accordance with BS 5572 : 1978
dimensional accuracy
materials' properties.

16 Other investigations

16.1 The manufacturing processs was examined, including the methods adopted for quality control, and details were obtained of the quality and composition of the materials used.

16.2 Data were examined in relation to induced siphonage of associated fittings.

Additional information

The managment systems of Hepworth Building Products Ltd have been assessed and registered as meeting the requirements of BS 5750 : Part 2 : 1987† *Quality Systems — Specification for production and installation* by British Standards Institution Quality Assurance.

†The corresponding international and European standards are ISO 9002 and EN 29002 respectively.

Conditions of Certification

17 Conditions

17.1 The quality of materials and the method of manufacture have been examined and found satisfactory by the BBA and must be maintained to this standard during the period of validity of this Certificate. This Certificate will remain valid for an unlimited period provided that:

(a) the specification of the product is unchanged, and

(b) the manufacturer continues to have the product checked by the BBA.

17.2 Where reference is made in this Certificate to any Act of Parliament, Regulation made thereunder, Statutory Instrument, Code of Practice, British Standard, manufacturer's instruction or similar publication, it shall be construed as reference to such publication in the form in which it is in force at the date of this Certificate.

17.3 In granting this Certificate, the BBA makes no representation as to the presence or absence of patent rights subsisting in the product and/or as to the legal right of Hepworth Building Products Ltd to market, install or maintain the product.

17.4 It should be noted that any recommendations relating to the safe use of this product which are contained or referred to in this Certificate are the minimum standards required to be met when the product is used. They do not purport in any way to re-state the requirements of the Health and Safety at Work etc Act 1974, or of any other statutory or Common Law duties of care, or of any duty of care which may in the future exist; nor is conformity with such recommendations to be taken as satisfying the requirements of the 1974 Act or of any other present or future statutory or Common Law duties of care. In granting this Certificate, the BBA does not accept responsibility to any person or body for any loss or damage incurred in respect of personal injury arising as a direct or indirect result of the use of this product.

BBA BRITISH BOARD OF AGRÉMENT
TECHNICAL APPROVALS FOR CONSTRUCTION

In the opinion of the British Board of Agrément the Hepworth Soil Manifold is satisfactory if used as set out in the above text. This Certificate No 86/1733 is accordingly awarded to Hepworth Building Products Ltd.

On behalf of the British Board of Agrément

Date of Second issue: 14th May 1991 Director

**Original Certificate was awarded to Bartol Plastics Ltd and issued on 16th September 1986. This amended Certificate includes changes of Certificate holder, product name and references to the new or revised national Building Regulations and to revised British Standards. The part* Additional Information *has been added.*

Reconstructed in QuarkXPress — October 2001

British Board of Agrément
P O Box No 195, Bucknalls Lane
Garston, Watford, Herts WD25 9BA
Fax: 01923 665301

e-mail: mail@bba.star.co.uk
website: www.bbacerts.co.uk