

Laboratory furniture and fittings —

Part 4: Recommendations for installation

Committees responsible for this British Standard

The preparation of this British Standard was entrusted by the Laboratory Apparatus Standards Policy Committee (LBC/-) to Technical Committee LBC/18, upon which the following bodies were represented:

- Association for Science Education
- Association of the British Pharmaceutical Industry
- British Furniture Manufacturers' Federation
- British Laboratory Ware Association
- British Occupational Hygiene Society
- British Woodworking Federation
- CLEAPSS
- Chartered Institution of Building Services Engineers
- Chartered Society of Designers
- Chemical Industries Association
- Department of Education and Science
- Department of Health
- Department of the Environment (Property Services Agency)
- Department of Trade and Industry (Laboratory of the Government Chemist)
- Furniture Industry Research Association
- GAMBICA (BEAMA Ltd.)
- Health and Safety Executive
- Institute of Medical Laboratory Sciences
- Manufacturing, Science and Finance Union
- Medical Research Council
- National Association of Teachers in Further and Higher Education
- Royal Institute of British Architects
- Royal Society of Chemistry
- Universities Safety Association
- University Grants Committee

This British Standard, having been prepared under the direction of the Laboratory Apparatus Standards Policy Committee, was published under the authority of the Standards Board and comes into effect on 31 May 1991

© BSI 07-1999

The following BSI references relate to the work on this standard:
Committee reference LBC/18
Draft for comment 90/55169 DC

ISBN 0 580 19487 6

Amendments issued since publication

Amd. No.	Date	Comments

Contents

	Page
Committees responsible	Inside front cover
Foreword	ii
1 Scope	1
2 Definitions	1
3 Storage and handling	1
4 Laboratory condition for installation	1
5 Fixing floor- and wall-mounted furniture	1
6 Placing mobile and relocatable furniture	1
7 Services distribution zone in furniture	1
8 Services input	3
9 Services outlets	5
10 Installing services	8
11 User manual	8
12 Safety	8
Figure 1 — Services distribution zone	2
Figure 2 — Free-standing services unit	3
Figure 3 — Services input to spine	4
Publication(s) referred to	Inside back cover

Foreword

This Part of BS 3202 has been prepared under the direction of the Laboratory Apparatus Standards Policy Committee. It, together with Parts 1, 2 and 3, supersedes BS 3202:1959, which is withdrawn.

This Part is one of a series, the other Parts being as follows:

- *Part 1: Introduction;*
- *Part 2: Specification for performance;*
- *Part 3: Recommendations for design.*

This Part gives recommendations for the installation of laboratory furniture and fittings and the provision of services.

This Part should be read in conjunction with BS 3202-1. An index covering all Parts of BS 3202 is included in BS 3202-1.

Product certification. Users of this British Standard are advised to consider the desirability of third party certification of product conformity with this British Standard based on testing and continuing surveillance, which may be coupled with assessment of a supplier's quality systems against the appropriate Part of BS 5750.

Enquiries as to the availability of third party certification schemes will be forwarded by BSI to the Association of Certification Bodies. If a third party certification scheme does not already exist, users should consider approaching an appropriate body from the list of Association members.

A British Standard does not purport to include all the necessary provisions of a contract. Users of British Standards are responsible for their correct application.

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 8, an inside back cover and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.

1 Scope

This Part of BS 3202 gives recommendations for the installation of laboratory furniture and fittings that are specific to bench scale laboratories. It includes furniture and fittings to be used in Grade C radio-isotope work (see The Ionising Radiations Regulations 1985 and Approved Code of Practice) and Grade 3 bio-hazard work (see Genetic Manipulation Health and Safety Regulations 1981).

NOTE The titles of the publications referred to in this standard are listed on the inside back cover.

2 Definitions

For the purposes of this British Standard, the definitions given in BS 3202-1 apply.

3 Storage and handling

Prior to installation, furniture should be stored in a secure space and steps should be taken to minimize the risk of damage. Extra care should be taken in protecting furniture stored in the laboratory during decoration.

It is most important that all furniture, particularly timber furniture, should be stored and installed under dry, well ventilated conditions. These conditions should be held within the temperature limits of 10 °C to 30 °C and relative humidity of 40 % r.h. to 60 % r.h. Sudden variations within these limits should be avoided.

The adequacy of the access to the laboratory and any temporary storage space should be checked. In difficult cases, scaffolded access through windows may be necessary. Particular attention should be paid to the following:

- a) door widths;
- b) stairways and landings;
- c) lift car and doors;
- d) corridor widths and changes of direction.

4 Laboratory condition for installation

The furniture should not be installed if the air temperature and relative humidity in the laboratory to receive it is significantly different from those of its storage space.

If furniture has to be installed before new building work has dried out, heating and dehumidification should be applied slowly over a number of days. Dehumidifiers should be used in preference to heaters. If heating only is applied, good ventilation is essential.

Where mobile and relocatable furniture is to be installed, all surfaces, including those to be concealed by the furniture, should be decorated. This will minimize redecoration and making good at subsequent layout changes.

It is good practice to complete decoration as far as possible before furniture is installed. Floor coverings, however, may be scribed to fixed furniture after its installation.

The installed furniture should be protected effectively from following trades prior to handover.

5 Fixing floor- and wall-mounted furniture

NOTE Recommended dimensions of storage furniture are given in clause 10 of BS 3202-3:1991.

Fixed furniture items should be fixed to the floor or supporting wall by the method recommended by the manufacturer.

Floor-mounted bench substructures of the cupboard pedestal or leg frame type should include provision for levelling the worktop by either of the following means:

- a) scribing or cutting to fit to any unevenness or undulation in the floor surface; or
- b) use of adjustable levelling devices; end fillers or scribing pieces should also be provided to enable carcass units to be aligned against any unevenness or inclination of the walls.

Similar facilities should be provided for wall-mounted furniture. Worktops should be provided with integral upstands in order that the junction with the wall is located above the general work surface.

6 Placing mobile and relocatable furniture

Having placed mobile and relocatable furniture in the required position, levelling devices should be adjusted to achieve a neat level and line of all components in grouped arrangements.

Where required, components should be linked together in accordance with the manufacturer's instructions.

NOTE Where frequent relocation is anticipated, a facilities management procedure should be established to control and log the movement and re-installation of all furniture components.

7 Services distribution zone in furniture

Laboratory furniture layouts should include "spine" zones for services distribution within the furniture area.