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SPECIFICATION FOR  
STEEL TUBES AND  
TUBULARS  
SUITABLE FOR SCREWING  
TO BS 21 PIPE THREADS

BS 1387 : 1967

INCLUDING AMENDMENT 1/2358. 30/9/77.

Price 8/- net

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The Institution desires to draw attention to the fact that this British Standard does not purport to include all the necessary provisions of a contract.

This standard makes reference to the following British Standards:



BS 18. Methods for tensile testing of metals. Part 4. Steel tubes.

BS 21. Pipe threads.

BS 1740. Wrought pipe fittings, iron and steel (screwed B.S.P. thread).

BS 3654. Method for converting elongation values for steel. Part 1. Carbon and low alloy steels.

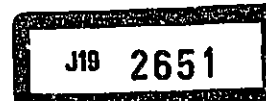
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The following BSI references relate to the work on this standard:  
Committee reference ME/45 Draft for comment D65/9648



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## CO-OPERATING ORGANIZATIONS

The Mechanical Engineering Industry Standards Committee, under whose supervision this British Standard was prepared, consists of representatives from the following Government departments and scientific and industrial organizations:

Associated Offices' Technical Committee  
 Association of Consulting Engineers  
 Association of Mining Electrical and Mechanical Engineers  
 Board of Trade  
 British Chemical Plant Manufacturers' Association  
 British Compressed Air Society  
 British Electrical and Allied Manufacturers' Association  
 British Gear Manufacturers' Association  
 British Internal Combustion Engine Manufacturers' Association  
 \*British Iron and Steel Federation  
 British Mechanical Engineering Federation  
 British Railways Board  
 \*Crown Agents for Oversea Governments and Administrations  
 Electricity Council, the Central Electricity Generating Board and the Area Boards in England and Wales  
 Engineering Equipment Users' Association  
 \*Gas Council  
 Institute of Marine Engineers  
 Institution of Civil Engineers  
 \*Institution of Gas Engineers  
 \*Institution of Heating and Ventilating Engineers  
 \*Institution of Mechanical Engineers  
 Institution of Mechanical Engineers (Automobile Division)  
 Institution of Production Engineers  
 Locomotive and Allied Manufacturers' Association of Great Britain  
 London Transport Board  
 Machine Tool Trades Association  
 Ministry of Defence, Army Department  
 Ministry of Defence, Navy Department  
 Ministry of Labour, H.M. Factory Inspectorate  
 Ministry of Power  
 Ministry of Public Building and Works  
 Ministry of Technology, National Engineering Laboratory  
 Ministry of Transport  
 National Coal Board  
 National Physical Laboratory (Ministry of Technology)  
 Radio Industry Council  
 Royal Institute of British Architects

The scientific and industrial organizations marked with an asterisk in the above list, together with the following, were directly represented on the committee entrusted with the preparation of this British Standard:

Gas List Tube Association  
 Heating and Ventilating Contractors' Association  
 Institute of Petroleum  
 Institute of Plumbing  
 Institute of Refrigeration  
 Institution of Chemical Engineers  
 Institution of Municipal Engineers  
 Institution of Public Health Engineers  
 Institution of Water Engineers  
 Metropolitan Water Board  
 Royal Institution of Naval Architects  
 Royal Society for the Promotion of Health  
 Individual firms

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BRITISH STANDARD SPECIFICATION FOR  
STEEL TUBES AND TUBULARS SUITABLE  
FOR SCREWING TO BS 21 PIPE THREADS

FOREWORD

A British Standard for steel tubes and tubulars was first issued in 1938 as BS 789. In 1947 a revised edition with the present number BS 1387 was issued. A further revision taking account of  $1\frac{1}{2}$  and  $1\frac{1}{4}$  was issued in 1957.

The present revised standard includes running nipples and close taper nipples which are no longer covered by BS 1740†. The minimum outside diameters of sockets have been brought into line with those agreed for fittings to BS 1740. The opportunity has been taken to revise other clauses to bring the standard into line with present practice.

Throughout the standard metric values are shown alongside the British values. These are either corresponding values taken from the relevant ISO Standard, or, where these are not applicable, approximate values. Whilst the metric values are not necessarily exact values, they do, for the purpose of this standard, ensure practicable interchangeability.

$1\frac{1}{2}$  in nominal size is not in great demand and has been deleted from the standard.

Attention is drawn to the fact that  $6\frac{1}{2}$  in (165.1 mm) outside diameter is no longer a British or International Standard for plain end tubes and should be used only where screwing to BS 21 is unavoidable. Where 6 in (150 mm) nominal size is required,  $6\frac{1}{8}$  in (168.3 mm) outside diameter should be used screwed to ASA B2.1§ or API 5B||, as recommended in ISO 64¶, or using other forms of joints.

Existing British Standard Codes of Practice for building relating to town gas and water, and also the relevant bye-laws, preclude the use of light tubes for these services.

NOTE. This British Standard does not indicate the services for which the tubes are appropriate. Where the use of tubes is not controlled by bye-laws or regulations, reference should be made to the appropriate Code of Practice or application standard.

\* ISO 650, 'Steel sockets screwed in accordance with ISO/R 7. Minimum lengths'. This Recommendation gives the corresponding metric dimensions to the inch values.

† ISO 665, 'Steel tubes suitable for screwing in accordance with ISO/R 7'. This Recommendation gives the corresponding metric dimensions to the inch values.

‡ BS 1740, 'Wrought pipe fittings, iron and steel (screwed B.S.P. thread)'.

§ ANSI B2.1, 'Pipe threads'.

|| API 5B, 'Specification for line pipe threads'.

¶ ISO 64, 'Steel tubes. Outside diameters'.

## SPECIFICATION

### 1. GENERAL

#### 1.1 SCOPE

This British Standard applies to welded and seamless, screwed and socketed steel tubes and tubulars, and to plain end steel tubes suitable for screwing to BS 21 pipe threads of nominal bores from  $\frac{3}{8}$  in (6 mm) to 6 in (150 mm) inclusive. Three thicknesses of tube are provided for as specified in Tables 1, 2 and 3 and are designated *Light*, *Medium* and *Heavy*.

#### 1.2 DEFINITIONS

For the purposes of this British Standard the following definitions apply:

- (1) *Tube*. A straight tube of uniform bore.

NOTE. The term 'tube' is synonymous with the term 'pipe'.

- (2) *Socket*. The screwed coupling utilized in jointing the tubes together.

NOTE. The term 'socket' is synonymous with the term 'coupler'.

- (3) *Tubulars*. Pieces, nipples, flanges, screws, bends, springs and return bends, as described in Section 3 and in Tables 5 to 9.

- (4) *Length*. *a*. Of screwed and socketed 'random length' tube. The overall length when one socket has been screwed on.

*b*. Of screwed and socketed 'exact length' tube. The length of the tube exclusive of the socket.

- (5) *Nominal bore*. A size reference denoting the approximate bore of the tube. For each size of tube, the outside diameter is fixed by the corresponding screw thread dimensions of BS 21\*, therefore the actual bore of each size of tube will vary according to the thickness.

#### 1.3 DESIGNATION

The tubes and tubulars shall be designated by their nominal bores. Sockets and backnuts shall be designated by the respective nominal bores of the tubes for which they are intended.

#### 1.4 INFORMATION REQUIRED WITH ENQUIRY AND ORDER

When the purchaser desires to witness the mechanical or other tests, or to receive certificates that the tubes or tubulars conform in all respects to the appropriate requirements of this standard, he shall state this in his enquiry and order. He shall also state whether he requires the galvanizing test (see 2.7) to be carried out.

\* BS 21, 'Pipe threads'.