

Glossary of

Terms relating to solid fuel burning equipment —

Part 2: Industrial water heating and
steam raising installations

Co-operating organizations

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

- Association of Boiler Setters, Chimney and Furnace Constructors
- Association of Consulting Engineers
- British Cast Iron Research Association
- British Coal Utilisation Research Association
- British Coke Research Association
- British Electrical and Allied Manufacturers' Association
- British Ironfounders' Association*
- British Mechanical Engineering Federation
- British Steel Industry*
- Chamber of Coal Traders
- Chemical Industries Association
- Coal Utilisation Council
- Coke Oven Managers' Association
- Combustion Engineering Association*
- Confederation of British Industry
- Council of Ironfoundry Associations
- Electricity Council, the Central Electricity Generating Board and the Area Boards in England and Wales
- Gas Council*
- Heating and Ventilating Contractors Association
- Imperial Chemical Industries Limited
- Institute of British Foundrymen*
- Institute of Fuel
- Institution of Gas Engineers*
- Institution of Heating and Ventilating Engineers*
- Institution of Mechanical Engineers*
- Iron and Steel Institute
- Low Temperature Coal Distillers' Association of Great Britain Ltd.*
- Ministry of Housing and Local Government
- Ministry of Power
- Ministry of Public Building and Works
- National Coal Board*
- Society of British Gas Industries
- Water-tube Boilermakers' Association*
- Women's Advisory Council on Solid Fuel

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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:

- Association of Shell Boilermakers

Amendments issued since publication

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Foreword

This standard makes reference to the following British Standard:

BS 410, *Test sieves*.

This glossary deals specifically with terms used in connection with solid fuel burning equipment and bearing on their function, performance and construction. Where a term is in common usage in other fields, the definition applying to solid fuel equipment only is given.

In order to limit the size of the glossary, many associated or self-explanatory terms have been omitted. Each part of the glossary is divided into sections and an index is provided for ease of reference. Every endeavour has been made to group terms which are descriptive of related items, processes or phenomena and to cover all relevant terms in each part.

In certain instances, synonymous terms are included; where the use of one or more of such terms is non-preferred, they are given in small capitals, and, if usage is to be discouraged, the word *deprecated* is added.

Part 2 of the glossary refers to industrial solid fuel burning equipment for supplying hot water or steam.

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Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, pages 1 to 10, 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 General

No.	Term	Definition
101	boiler plant	One or more boilers and the associated equipment.
102	furnace FIREBOX	The chamber in which the primary combustion of the fuel takes place.
103	firing equipment	The mechanism by which fuel is supplied to and caused to burn in a furnace.
104	fuel handling plant	The means by which a bulk supply of fuel is made available to the firing equipment.
105	furnace tube	A cylindrical tube of relatively large cross-section, within and part of the boiler, in which the furnace is situated.
106	combustion chamber	A confined space in which the combustion of any unburnt products leaving the furnace may be completed.
107	water-tube	A tube of relatively small cross-section, being part of the boiler, through which water and steam circulates.
108	Galloway tubes	Large conical water-tubes crossing the furnace tubes in a Lancashire type boiler. Currently also used to describe cylindrical water-tubes crossing the furnace tubes in an economic or a packaged boiler.
109	smoke tube	A tube of relatively small cross-section, being part of the boiler, through which products of combustion pass.
110	smokebox	A confined space receiving the products of combustion from a bank of smoke tubes.
111	primary air	Combustion air which passes into the fuelbed (see also 1017).
112	secondary air	A supply of air for the purpose of completing the combustion of combustible gases leaving the fuelbed (see also 1018)
113	draught	The draught at any particular point in a boiler system is the gas-pressure difference between that point and the atmosphere at the same level.
114	natural draught	A draught produced solely by the difference between the density of the gases within the flue and the density of the ambient air.
115	induced draught	A draught produced by exhausting the products of combustion by artificial means.
116	forced draught	A draught produced by supplying the air for combustion under positive pressure.
117	balanced draught	A combination of forced draught and induced or natural draught, to produce in the furnace a pressure condition approximating to that of the atmosphere.

2 Steam and hot water boilers

201	natural circulation boiler	A boiler within which circulation of the water takes place because of differences in density.
202	forced circulation boiler	A boiler within which the water is circulated in a pre-determined direction by mechanical means.
203	assisted circulation boiler	A boiler in which natural circulation is assisted by mechanical means.