

AS 1853—1983

Australian Standard<sup>®</sup>

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**Automatic oil and gas  
burners—Mechanical draught**

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BURNER: GAS AND OIL (Automatic, Industrial or Commercial)  
... NSC 4530]

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The following interests are represented on Committee ME/21:

Australian Gas Association  
Australian Institute of Energy  
Australian Institute of Petroleum Limited  
Bureau of Steel Manufacturers of Australia  
Confederation of Australian Industry  
Department of Labour and Industry, Victoria  
Department of Mines and Energy, Northern Territory  
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## PREFACE

This edition of this standard was prepared by the Association's Committee on Industrial Fuel-fired Equipment to supersede AS 1853—1976, Rules for the Design and Construction of Single Automatic Oil and Gas Burners and Their Application to Boilers.

The reference standard used by earlier boiler codes had been a section of AS CB5 which gave basic rules for oil-firing. This was replaced in 1973 by AS 1375, SAA Industrial Fuel Fired Appliances Code, which became the basic standard for the entire range of industrial oil-fired or gas-fired equipment. While that standard covered the general case very well, of necessity it dealt with broad principles; therefore, it was decided that a specialist standard was needed, to detail the specific requirements for burner systems on small and medium boilers of the type that usually operate automatically.

It was found as drafting proceeded, that the resulting standard fell naturally into two parts, one being a technical specification for automatic burners which would incorporate the best technology currently available, the second being how to apply such a burner to the boilers in question. It was recognized at the time that the automatic burner being described was suitable for a wider field of applications than boilers, but time did not permit the possibilities to be explored and developed, so AS 185—1976 had a basic orientation towards boilers.

Subsequently an additional need arose for a control system having a higher level of sophistication, to cater for a class of boilers that had become known as 'unattended'. This development caused a reassessment of subject boundaries and committee responsibilities, with the result that the two subjects of an automatic burner specification on the one hand and boiler management and control systems on the other were separated, the former to remain with the Committee on Industrial Fuel-fired Equipment, the latter being transferred to the Committee on Boilers and Unfired Pressure Vessels.

Thus, this edition is purely a specification for a high quality automatic burner for industrial use, be it for a boiler, furnace, oven or any similar combustion application. In effect, it describes how the basic burner control functions prescribed in AS 1375 may be carried out automatically. Amongst other things, it requires of the burner an ability to accept certain control or shutdown signals from the appliance to which it is attached, but the manner in which those signals are generated by the appliance or boiler is a matter for other standards.

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- (c) Adoption when a supplier or contractor states that equipment is in accordance with it.

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