

American National Standard

Procedures for the Determination and Expression of the Volume of Household Microwave and Conventional Ovens

ANSI/AHAM OV-1-2006



January 2006



PREFACE

The Association of Home Appliance Manufacturers develops standards in accordance with AHAM's "Policy and Procedures Governing Technical Standards", which states:

“AHAM Standards shall be in the best interest, mutually, of consumers who use appliances, and other properly interested parties.”

Use or observance of AHAM standards is voluntary.

AHAM Standards are presented to the American National Standards Institute (ANSI) for recognition as American National Standards. This standard was so recognized on January 31, 2006 and bears the American National Standard designation ANSI/AHAM OV-1-2006.

This standard contains procedures which may be applied to any brand or model of household microwave, electric or gas oven for determining and measuring volume. Results of measurements in accordance with this standard may be publicly stated.

With regard to safety, AHAM recommends that all appliance products - both major and portable - manufactured or marketed in the United States be submitted to an appropriate independent laboratory for inspection and listing in conformance with the safety standards and procedures followed by such laboratories.

AHAM welcomes comments and suggestions regarding this standard. Any standard may be reviewed and improved as needed. All standards must be updated or reconfirmed at least every five years. Any interested party, at any time, may request a change in an AHAM standard. Such request should be addressed to AHAM's President, and should be accompanied by a statement of reason for the request and a suggested alternate proposal.

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INTRODUCTION

The project to develop a standardized method for measuring and expressing the volumes of oven cavities originated in June 2003 following an agreement by those AHAM member companies that manufacture microwave ovens to proceed with its preparation. At first, only microwave ovens were considered.

Subsequently in March 2004 the scope of the effort was broadened to encompass gas and electric fuelled conventional ovens at the direction of AHAM's Major Appliance Engineering Council, in response to requests from manufacturers of those appliances.

A task force of specialists was formed with representation from member companies and relevant outside bodies, and consensus was reached on the procedures documented herein.

The following principles were adopted:

- The use of only direct linear measurement.
- Procedures cover the determination of both overall volume and usable space.
- The limiting of claimed usable space to that contained within a hypothetical rectangular box which could be inserted through the entrance aperture.
- The coverage of as many practical situations as could reasonably be envisioned, with additional instructions on nonconforming situations.
- The extensive use of additional explanatory diagrams to aid clarity.

It is recognized that the rounded imperial and metric units specified in this standard are not direct equivalents. Survey of the consumer market has indicated that established practice is to quote cavity volume either to the first decimal of a cubic foot or to the nearest liter, and it is not proposed to change this.

It is believed that this is the first standard to address these measurements in this level of detail. AHAM welcomes comments on its usability as a working document for possible incorporation in a future edition.

1. PURPOSE

1.1 This standard establishes a uniform, repeatable procedure or standard method for determining and expressing the overall volume, and usable oven space, of the cooking cavity of individual household ovens.

The standard method is not intended to inhibit improvement and innovation in product testing, design or performance.

2. SCOPE

2.1 These procedures apply to the ovens of those household cooking appliances listed under Sections 2.2 to 2.4 below. For the purpose of these requirements, household cooking appliances are those intended for household use.

2.2 Microwave Ovens:

2.2.1 Household microwave ovens operated in the Industrial, Scientific and Medical (ISM) bands of 915 ± 25 and 2450 ± 50 MHz, for use in ordinary locations in accordance with the National Electrical Code, NFPA 70.

2.2.2 Free-standing countertop microwave ovens together with those intended for built-in installation, side-by-side mounting, stacking, wall mounting and installation over ranges.

2.2.3 Ovens for which microwave heating is the primary function, whether or not alternative cooking methods such as radiant or convection heating are also included, and whether manufactured as stand-alone devices or in combination with other appliances.

2.3 Electric Ovens:

2.3.1 In floor supported ranges equipped with surface units and one or more ovens.

2.3.2 In built-in combinations of surface units and one or more ovens.

2.3.3 Wall mounted ovens with one or more ovens.

2.3.4 Built-in ovens with one or more ovens.

2.3.5 Ovens in which radiant or convective heat produced by electricity is the primary cooking method, whether or not alternative methods are also included.

2.3.6 *Not covered* are portable ovens for countertop use.