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PREFACE TO 1962 VOLUME APPLICATIONS

The publication of this APPLICATIONS VOLUME of the ASHRAE GUIDE AND DATA BOOK 1962 completes the merger of the HEATING VENTILATING AIR CONDITIONING GUIDE of the ASHAE and the AIR CONDITIONING REFRIGERATING DATA BOOK of ASRE into a 2-volume series which includes all subjects formerly presented in both. In addition the first of the series had fifteen new chapters while this second volume has twelve.

The 1961 FUNDAMENTALS AND EQUIPMENT VOLUME and this 1962 APPLICATIONS VOLUME now provide a comprehensive treatment of theory and current practice in the field of Heating, Refrigerating, Ventilating, and Air Conditioning.

Features of this volume are methods for design of systems grouped under 13 sections as follows: I—Air Conditioning Systems, II—Heating Systems, III—Comfort Air Conditioning, IV—Industrial Ventilation, V—Industrial Air Conditioning, VI—Refrigerated Food and Beverage Processes, VII—Frozen Food Processing, VIII—Refrigerated Warehouse Practice, IX—Refrigerated and Frozen Food Distribution, X—Low Temperature Applications, XI—Industrial Applications of Refrigeration, XII—Refrigerant Piping Systems, and XIII—General Applications.

Under the above section headings, there are a total of 79 chapters distributed as shown in the Table of Contents on pages which follow. Subjects which have been given completely new treatment are: (1) Central Station Systems for Air Conditioning; (2) Dual-Duct, Induction Unit, and Fan-Coil Conditioner Systems; (3) Panel-Air Systems for Air Conditioning; (4) Heat Pump Systems for Air Conditioning; (5) Store Air Conditioning; (6) Precision Manufacturing, Laboratories, and Testing; (7) Library and Museum Air Conditioning; (8) Hospital Air Conditioning; (9) Air Conditioning for Animals; (10) Refrigerant Piping Systems for Ammonia; (11) Refrigerant Piping Systems—Multi-Stage Applications; and (12) Water and Brine Piping.

Eight chapters are devoted to air conditioning for comfort and eleven treat air conditioning for industrial purposes. Nine chapters are concerned with heating application.

Processing, storage, refrigeration, and distribution of food are described in 23 chapters; low temperature applications in 5 chapters, and refrigerant piping in 5 chapters.

Graphic illustrations, of which 385 are new, are used generously to amplify the explanations in the text. Much text used from previous books, but not mentioned above, has been amplified and improved—in addition to being revised to bring it up to date.

For convenience in finding technical information and tabulated data a complete 16-page index on blue paper has been placed ahead of the Technical Data Section. A quick reference to chapter titles and numbers will be found inside of front cover.

Equipment needed for various types of installations is readily found by means of a 22-page index preceding the Catalog Data Section which contains 341 pages of information pertaining to products of leading manufacturers in heating, refrigerating, ventilating, and air conditioning.

The preparation of this volume has been made possible by the cooperation of a large number of Society members and other engineers, participating individually or as committee members; in compiling new information based on their experience. Committees deserving special mention are ASHRAE Technical Committees on: Dairy Products, Electric Heating, Energy Requirements Estimating, Fermentation Processes and Products, Hot Water and Steam Heating, Meat, Fish and Poultry Products, and Odor Causes and Control.

Government agencies that have supplied important information are: U. S. Department of Agriculture, U. S. Department of Interior; Bureau of Fisheries, U. S. Fish and Wildlife Service, and National Bureau of Standards. Private associations and industries have been very generous in permitting

