

PREFACE TO THE 12th EDITION

THE Technical Data Section of this, the 12th Edition of the A.S.H.V.E. GUIDE, has been enlarged to include newly developed data that are vitally important in meeting the present day demands of engineers who devote their time to heating, ventilating and air conditioning practice. From the practical experience of members as well as from available research sources useful facts have been gathered and incorporated in the 42 chapters which have been arranged for convenient reference.

Since its first appearance in 1922 THE GUIDE has maintained its leadership in the development of the heating and ventilating art so that today it is the recognized authority of the profession and industry. It influences thousands of engineers, architects, contractors and students who are designing, operating, specifying, installing and studying systems and apparatus, the functions of which are to create comfort and to improve the efficiency of processing.

All of the data in the previous edition have been reviewed, many chapters have been revised and amplified while others have been completely replaced. The new chapters include the Cooling Load and Cooling Methods, Unit Conditioners, Radiant and Electric Heating, Humidifying and Dehumidifying Equipment, Steam Heating Systems and Piping. Extensive changes will be noted in the chapters on Industrial Air Conditioning, Natural Ventilation, Central Fan Systems, Air Cleaning Equipment, Sound Control, Mechanical Furnace Systems, Radiators and Gravity Convectors, Heating Boilers, Pipe Insulation, Pipe, Fittings and Welding, Definitions and Terms. The remaining chapters were revised in order to bring them up-to-date.

Slight modifications were made in the chapters on Heat Transmission and Air Filtration. The transmission and air leakage values introduced in the 1933 edition have been retained although considerable comment came from users because some of the factors were greater than those used in THE GUIDE 1932. However, a careful check of the experimental work which produced the basic figures for THE GUIDE 1933 indicated that the values determined by the research groups responsible for these factors were reliable and that the values should be used. However, the method of application in practice has been slightly modified in this 1934 edition of THE GUIDE.

With 42 chapters and a comprehensive index totaling 620 pages, THE GUIDE 1934 presents the largest technical data section ever compiled and published by the AMERICAN SOCIETY OF HEATING AND VENTILATING ENGINEERS. Supplemented by the engineering data of leading manufacturers in the Catalog Section, the user will find essential facts that are invaluable in laying out a plant or selecting equipment. This unique method effectively covering both practice and equipment makes THE GUIDE outstanding in its service to the user.

Leading manufacturers of equipment recognize this fact and find that catalog advertising is most effective in extending the use of Modern Equipment in this highly specialized and progressive field. By means of this cooperation, the AMERICAN SOCIETY OF HEATING AND VENTILATING ENGINEERS can produce and distribute THE GUIDE economically and thereby contribute effectively toward the general advancement of the profession and its allied industries.

THE GUIDE 1934 is released for service and it is the desire of THE GUIDE Publication Committee that it will perform its intended mission for its thousands of friends in the profession.

W. L. FLEISHER, *Chairman*
GUIDE PUBLICATION COMMITTEE

EDITORIAL ACKNOWLEDGMENT

FOR the important work of creating THE GUIDE 1934 the assistance of engineers of specialized training and knowledge was enlisted. The careful reviewing, compiling and editing of data selected from authoritative sources was accomplished through the cooperative efforts of the following men who have unselfishly given of their time and knowledge:

T. NAPIER ADLAM
J. C. ALBRIGHT
H. L. ALT
C. F. AMES
C. M. ASHLEY
A. L. BAUM
J. L. BLACKSHAW
C. A. BULKELEY
R. E. CHERNE
L. A. CHERRY
P. D. CLOSE
R. F. CONNELL
J. M. DALLAVALLE
PHILIP DRINKER
M. WILLIAM EHRLICH

JOHN EVERETTS, JR.
F. H. FAUST
W. G. FRANK
R. S. FRANKLIN
F. E. GIESECKE
W. C. GOODWIN
L. A. HARDING
H. M. HART
F. C. HOUGHTEN
L. P. HYNES
R. E. KEYES
V. O. KNUDSEN
A. P. KRATZ
J. W. KREITNER

G. L. LARSON
R. D. MADISON
J. F. MCINTIRE
H. B. MELLER
J. G. MINGLE
H. C. MURPHY
D. W. NELSON
A. J. NESBITT
M. E. O'CONNELL
A. J. OFFNER
E. C. RACK
F. G. SEDGWICK
G. L. TUVE
C. P. YAGLOU
JOHN ZINK

THE GUIDE Publication Committee is glad to acknowledge the splendid cooperation of these engineers who have served so willingly for the benefit of their associates in the profession.

GUIDE PUBLICATION COMMITTEE

W. L. Fleisher, *Chairman*

D. S. Boyden

F. E. Giesecke

R. E. Keyes

John Zink