

ASME PTC 10-2022
[Revision of ASME PTC 10-1997 (R2014)]

Axial and Centrifugal Compressors

Performance Test Codes

AN AMERICAN NATIONAL STANDARD



**The American Society of
Mechanical Engineers**

ASME PTC 10-2022
[Revision of ASME PTC 10-1997 (R2014)]

Axial and Centrifugal Compressors

Performance Test Codes

AN AMERICAN NATIONAL STANDARD



**The American Society of
Mechanical Engineers**

Two Park Avenue • New York, NY • 10016 USA

Date of Issuance: August 24, 2023

The next edition of this Code is scheduled for publication in 2027.

This code or standard was developed under procedures accredited as meeting the criteria for American National Standards. The standards committee that approved the code or standard was balanced to ensure that individuals from competent and concerned interests had an opportunity to participate. The proposed code or standard was made available for public review and comment, which provided an opportunity for additional public input from industry, academia, regulatory agencies, and the public-at-large.

ASME does not “approve,” “certify,” “rate,” or “endorse” any item, construction, proprietary device, or activity. ASME does not take any position with respect to the validity of any patent rights asserted in connection with any items mentioned in this document, and does not undertake to insure anyone utilizing a standard against liability for infringement of any applicable letters patent, nor does ASME assume any such liability. Users of a code or standard are expressly advised that determination of the validity of any such patent rights, and the risk of infringement of such rights, is entirely their own responsibility.

Participation by federal agency representatives or persons affiliated with industry is not to be interpreted as government or industry endorsement of this code or standard.

ASME accepts responsibility for only those interpretations of this document issued in accordance with the established ASME procedures and policies, which precludes the issuance of interpretations by individuals.

The endnotes and preamble in this document (if any) are part of this American National Standard.



ASME Collective Membership Mark

“ASME” and the above ASME symbol are registered trademarks of The American Society of Mechanical Engineers.

No part of this document may be reproduced in any form,
in an electronic retrieval system or otherwise,
without the prior written permission of the publisher.

The American Society of Mechanical Engineers
Two Park Avenue, New York, NY 10016-5990

Copyright © 2023 by
THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS
All rights reserved

CONTENTS

Notice		vi
Foreword		iii
Committee Roster		x
Correspondence With the PTC Committee		xi
Section 1	Object and Scope	1
1-1	Object	1
1-2	Scope	1
1-3	Equipment Not Covered by This Code	2
1-4	Types of Tests	2
1-5	Performance Relation to Guarantee	2
1-6	Alternate Procedures	2
1-7	Instructions	2
1-8	References	2
Section 2	Definitions and Description of Terms	3
2-1	Basic Symbols and Units	3
2-2	Pressure Definitions	3
2-3	Temperature Definitions	3
2-4	Other Gas (Fluid) Properties Definitions	7
2-5	Operating Characteristics Definitions	8
2-6	Work, Power, and Efficiency Definitions	9
2-7	Miscellaneous Definitions	9
2-8	Interpretation of Subscripts	10
Section 3	Guiding Principles	11
3-1	Planning the Test	11
3-2	Types of Tests	11
3-3	Limitation	13
3-4	Test Gas and Speed	16
3-5	Intermediate Flow Streams	17
3-6	Safety	19
3-7	Piping	19
3-8	Instrumentation	19
3-9	Preliminary Test	20
3-10	Test Operation	20
3-11	Test Stabilization	21
3-12	Inconsistencies	21
3-13	Errors and Uncertainties	21
3-14	Test Log Sheets	22
Section 4	Instruments and Methods of Measurement	23

4-1	Methods	23
4-2	Instrumentation	23
4-3	Piping	23
4-4	Protective Screens	29
4-5	Flow Conditioners	29
4-6	Pressure Measurements	29
4-7	Temperature Measurements	30
4-8	Capacity Measurements	31
4-9	Gas Composition	32
4-10	Speed Measurement	33
4-11	Time Measurement	33
4-12	Methods of Shaft Power Measurement	33
4-13	Shaft Power by Torque Measurements	33
4-14	Shaft Power by Electrical Measurements	34
4-15	Shaft Power by Heat Balance Measurements	34
4-16	Heat Loss	35
4-17	Mechanical Losses	35
4-18	Instrument Calibration and Uncertainty	35
4-19	Humidity Measurement	36
4-20	Torque Measurement	36
4-21	Data Acquisition System	37
Section 5	Computation of Results	38
5-1	Calculation Procedure	38
5-2	Computational Methods: Choice of Methods	38
5-3	Type 2 Test Gas and Test Speed Selection	39
5-4	Calculations for Test Conditions	45
5-5	Nondimensional Parameters	53
5-6	Calculations for Specified Operating Conditions	54
Section 6	Report of Test	62
6-1	Contents	62
6-2	Typical Report Information	62
Section 7	Test Uncertainty	67
7-1	General	67
7-2	Scope of Uncertainty Analysis	67
7-3	Methods of ASME PTC 19.1	67
7-4	Test Method Uncertainty	67
Nonmandatory Appendices		
A	Use of Total Pressure and Total Temperature to Define Compressor Performance	68
B	Type 2 Performance Testing of Back-to-Back Compressors	70
C	Sample Case Calculations	74
D	References and Bibliography	115
E	Rationale for Calculation Methods	119
F	Reynolds Number Correction for Centrifugal Compressors	128
G	Methods for Calculating Total Conditions	129

H	Test Uncertainty Sample Calculation	131
---	---	-----

Figures

3-2.1-1	Allowable Test Machine Mach Numbers for Centrifugal Compressors	13
3-2.1-2	Allowable Test Machine Mach Numbers for Axial Compressors	14
3-2.1-3	Allowable Test Machine Reynolds Numbers Departure for Centrifugal Compressors	15
3-3.1-1	Section Control Volume	16
3-5.2-1	Typical Sidestream Sections	17
4-3.2-1	Inlet and Discharge Configuration	24
4-3.2-2	Open Inlet	25
4-3.2-3	Vortex-Producing Axial Inlet	25
4-3.3-1	Diffusing Volute Discharge With Nonsymmetric Flow	26
4-3.3-2	Open Discharge	26
4-3.4-1	Typical Closed Loop	27
4-3.4-2	Typical Closed Loop With Sidestream	28
4-7.6-1	Typical Inward Sidestream Cross Section	32
5-2.4-1	Sandberg-Colby Multistep Numerical Integration Method	41
5-4.4.1-1	Rigorous Method to Calculate the Test Total Pressure and Temperature	47
5-4.4.2-1	Alternative Mach Number Method to Calculate the Test Total Pressure and Temperature	49
5-6.1.2-1	Interpolation for the Specified Condition Flow Coefficient	57
5-6.3.2-1	Machine Reynolds Number Correction for Centrifugal Compressors	60
A-4-1	Compressor State Points, Static and Total	69
B-2.1-1	Typical Back-to-Back Compressor Type 2 Test Setup	71
C-3.2-1	Typical Straight-Through Centrifugal Compressor Section	77
C-3.2-2	Phase Diagram for Specified Gas Composition	79
C-3.5-1	Phase Diagram for Test Gas Composition	90
C-3.9-1	As-Tested Flow Coefficient and Volume Ratio	101
C-3.9-2	As-Tested Machine Mach Number	102
C-3.9-3	As-Tested Machine Reynolds Number	103
C-3.10.2-1	Reynolds Number Correction Trend — Polytropic Efficiency — Perfect Test	105
C-3.10.2-2	Reynolds Number Correction Trend — Polytropic Work Coefficient — Perfect Test	105
C-3.10.2-3	Reynolds Number Correction Trend — Flow Coefficient — Perfect Test	106
C-3.10.2-4	Reynolds Number Correction Trend — Work Input and Total Work Input Coefficients — Perfect Test	106
C-3.12.2.1-1	Trends for Natural Convection Heat Transfer Coefficient	113
C-3.12.2.2-1	Trends for Radiative Heat Transfer Rate	114
E-3.11-1	Compressor Section Model	125

Tables

2-1-1	Symbols and Units	4
2-1-2	Subscripts	6
3-2.1-1	Permissible Deviation From Specified Operating Conditions for Type 1 Tests	12
3-2.1-2	Permissible Deviation From Specified Operating Parameters for Type 1 and Type 2 Tests	12
3-12.2-1	Permissible Fluctuations of Test Readings	22
4-18.2-1	Typical End-to-End Measurement Uncertainty	36

5-2.2-1	Sandberg–Colby Method Polytopic Relations	38
5-2.3-1	Huntington Method Polytopic Relations	40
5-6.1.2-1	Real Gas Nondimensional Parameters	55
5-6.1.2-2	Conversion of Nondimensional Parameters	55
7-4-1	Maximum Expected Uncertainty	67
B-2.4-1	Sample Post-Test Leakage Evaluation for Division Wall	73
B-2.4-2	Sample Post-Test Leakage Evaluation for Balance Seal	73
C-1.3.1-1	Historical Gas Models and Labels	75
C-3.2-1	Specified Design for High-Pressure Natural Gas Compressor	78
C-3.3-1	Specified Performance Calculations for High-Pressure Natural Gas Compressor	81
C-3.3-2	Calculation of Total Conditions for Specified Performance: Inlet — U.S. Customary Units	82
C-3.3-2M	Calculation of Total Conditions for Specified Performance: Inlet — SI Units	83
C-3.3-3	Calculation of Total Conditions for Specified Performance: Discharge — U.S. Customary Units	84
C-3.3-3M	Calculation of Total Conditions for Specified Performance: Discharge — SI Units	85
C-3.4-1	Type 2 Preliminary Test Design	87
C-3.4-2	Screening Criteria Comparison for Potential Test Gas Compositions	88
C-3.5-1	Test Design for High-Pressure Natural Gas Compressor Using Carbon Dioxide	89
C-3.5-2	Test Design Performance Calculations for High-Pressure Natural Gas Compressor Using Carbon Dioxide	91
C-3.6.1-1	Necessary Information	92
C-3.6.1.1-1	Recorded Raw Data Observations for Compressor Inlet Static Pressure for a Test Point	92
C-3.6.1.1-2	Raw Data Observations Converted to Absolute Values	93
C-3.6.1.1-3	Test for and Remove Outliers on a per-Reading Basis	93
C-3.6.1.1-4	Raw Data Observations Excluding Outliers	94
C-3.6.1.1-5	Verification of Fluctuation Compliance	94
C-3.6.1.1-6	Determination of Test Point Value, T_p , Excluding Outliers and Rejected Readings Due to Fluctuations	94
C-3.6.1.2-1	Recorded Raw Data Observations for Compressor Inlet Measured Temperature for a Test Point	95
C-3.6.1.2-2	Converted Raw Data Observations to Absolute Values	95
C-3.6.1.2-3	Test for and Remove Outliers on a per-Reading Basis	95
C-3.6.1.2-4	Raw Data Observations Excluding Outliers	96
C-3.6.1.2-5	Verification of Fluctuation Compliance	96
C-3.6.1.2-6	Determination of Test Point Value, T_p , Excluding Outliers and Rejected Readings Due to Fluctuations	96
C-3.6.2-1	Type 2 As-Tested Data Point	97
C-3.7-1	Comparison of Test Design and As-Tested Inlet and Discharge Conditions	98
C-3.7-2	Comparison of Test Design and As-Tested Performance	99
C-3.8-1	As-Tested Nondimensional Results	100
C-3.9-1	Specified and As-Tested Operating Parameters	100
C-3.10-1	As-Tested Reynolds Number Corrections	104
C-3.11-1	As-Tested Performance at Specified Conditions	108
C-3.11-2	Comparison of Specified Performance and Converted Specified Performance	109
C-3.12.1-1	Specified and Type 2 Test Design Section Heat Transfer Losses	111
H-2-1	Sample Calculation of the Systematic Uncertainty for Polytopic Efficiency	133
H-2-2	Sample Calculation of the Systematic Uncertainty for Polytopic Work	134

NOTICE

All ASME Performance Test Codes (PTCs) shall adhere to the requirements of ASME PTC 1, General Instructions. It is expected that the Code user is fully cognizant of the requirements of ASME PTC 1 and has read them before applying ASME PTCs.

ASME PTCs provide unbiased test methods for both the equipment supplier and the users of the equipment or system. The Codes are developed by balanced committees representing all concerned interests and specify procedures, instrumentation, equipment-operating requirements, calculation methods, and uncertainty analysis. Parties to the test can reference an ASME PTC confident that it represents the highest level of accuracy consistent with the best engineering knowledge and standard practice available, taking into account test costs and the value of information obtained from testing. Precision and reliability of test results shall also underlie all considerations in the development of an ASME PTC, consistent with economic considerations as judged appropriate by each technical committee under the jurisdiction of the ASME Board on Standardization and Testing.

When tests are run in accordance with a Code, the test results, without adjustment for uncertainty, yield the best available indication of the actual performance of the tested equipment. Parties to the test shall ensure that the test is objective and transparent. All parties to the test shall be aware of the goals of the test, technical limitations, challenges, and compromises that shall be considered when designing, executing, and reporting a test under the ASME PTC guidelines.

ASME PTCs do not specify means to compare test results to contractual guarantees. Therefore, the parties to a commercial test should agree before starting the test, and preferably before signing a contract, on the method to be used for comparing the test results to the contractual guarantees. It is beyond the scope of any ASME PTC to determine or interpret how such comparisons shall be made.

FOREWORD

Revisions to test codes are inevitable in an effort to incorporate new technology and lessons learned. As is typical with this type of revision and update, committee members working to achieve an improved code have employed the previous code editions extensively throughout their professional careers. This leads to modifications, additions, and deletions to the code based on firsthand experience. However, the same ultimate goal sought by committees that rewrote previous editions remains. For the ASME PTC 10 Committee, that goal is to provide the best possible guidance and a set of rules to ensure that a compressor tested according to the Code reveals its true performance capabilities that will manifest when applied in the field. It is important to note that an acceptable ASME PTC 10 test simply means the results were obtained with adherence to Code requirements developed via dimensional analysis. The Code does not have rules concerning compressor acceptability to meet project guarantees agreed between vendors and users.

Historic and developing technical literature for compressor performance abounds with recommended changes and improvements to ASME PTC 10. These cover such technical areas as numerical solution algorithms, advances in equation of state accuracy and access, instrumentation, testing logic, and compressor hardware. The committee has reviewed and debated many proposed technical advances and judiciously applied sound engineering judgment tempered by collective experience, varied professional backgrounds, and a healthy dose of guidance from ASME.

Three major changes that previous Code users will notice are worthy of mention. These are

- (a) ideal gas considerations replaced by real gas methods
- (b) performance calculations based on the Schultz method replaced by an option to select from three polytropic computational methods
- (c) replacement and expansion of Reynolds number correction calculation

The first change is driven by industry's need to address fluid conditions even in excess of pressures and temperatures that previously were thought of as being in the near-ideal gas behavior region of a fluid's phase diagram. Nonideal fluid behavior has been a concern and historically has presented numerous discrepancies between predicted and measured compressor performance. These issues are much better understood today, and this revised Code requires all fluids be treated as real rather than ideal. Vast expansion in availability and access to reference-quality fluid equations of state assists in easing this transition.

The second major change has been driven by peer-reviewed published documentation showing the magnitude of relative differences introduced by various polytropic work computational methods. The polytropic methods previously embraced by the Code served analysts well for many years. The historical origins of those methods date back to the 1860s but they were thoroughly documented and expanded by Schultz (1962). Schultz's methods served as the basis for incorporation into ASME PTC 10-1965 and were retained in the 1997 edition. For this revised edition, the use of pv^n to develop a closed-form solution for the integral of polytropic work (vdp) has been abandoned in favor of methods with lower uncertainty over a broad range of fluid conditions. The three methods included in the current Code range from simple to complex with uncertainty decreasing with complexity. Computerized numerical tools render straightforward implementation of any of the three methods. The committee has expended a great amount of energy and resources in determining the methods to include in the Code and proving their ability to yield accurate results over a wide range of fluid conditions. In addition, the isentropic relations that were included in previous editions of the Code have been deleted. While the isentropic model was necessary to calculate the Schultz correction factor that was then applied to modify the polytropic calculation results, it was also used in some cases to provide alternate isentropic model performance calculations.

The third major change is the replacement and expansion of the Reynolds number correction methods. In actual practice, most vendors and users have replaced the methods adapted from Wiesner and included in ASME PTC 10-1997. Future tests performed according to this Code now apply the International Compressed Air and Allied Machinery Committee (ICAAMC) 1987 method for this subject. Nondimensional test results for polytropic efficiency, polytropic work coefficient, work input coefficient, and flow coefficient will all be corrected accordingly.

While it is not possible to describe all the changes incorporated into this revised Code in this Foreword, users should be aware that many additions, improvements, deletions, and changes have been made. Embracing the resulting Code will provide compressor performance analysts with accurate methods and testing guidance. Several appendices have been provided that will assist in explanations and illustrate sample calculations. [Nonmandatory Appendix D](#), References, has

been greatly expanded to provide users with a resource listing that will augment their own individual study of compressor performance.

This Code is available for public review on a continuing basis. This provides an opportunity for additional input from industry, academia, regulatory agencies, and the public-at-large.

ASME PTC 10-2022 was approved by the PTC Standards Committee on September 27, 2022, and was approved as an American National Standard by the American National Standards Institute (ANSI) Board of Standards Review on December 12, 2022.

Currently in preview, click buy full version

ASME PTC COMMITTEE

Performance Test Codes

(The following is the roster of the committee at the time of approval of this Code.)

STANDARDS COMMITTEE OFFICERS

S. A. Scavuzzo, *Chair*
T. K. Kirkpatrick, *Vice Chair*
D. Alonzo, *Secretary*

STANDARDS COMMITTEE PERSONNEL

P. G. Albert , Consultant	J. W. Milton , Chevron, USA
D. Alonzo , The American Society of Mechanical Engineers	S. P. Nuspl , Consultant
J. M. Burns , Burns Engineering Services, Inc.	S. A. Scavuzzo , The Babcock & Wilcox Co.
A. E. Butler , General Electric Power and Water	J. A. Silvaggio, Jr. , Siemens Demag Delaval Turbomachinery, Inc.
W. C. Campbell , True North Consulting, LLC	T. L. Toburen , T2E3, Inc.
J. Gonzalez , Iberdrola Ingeniería y Construcción	W. C. Wood , WW Services
R. E. Henry , Consultant	R. P. Allen , <i>Honorary Member</i> , Consultant
D. R. Keyser , Service Engineering	P. M. McHale , <i>Honorary Member</i> , McHale & Associates, Inc.
T. K. Kirkpatrick , McHale & Associates, Inc.	R. R. Priestley , <i>Honorary Member</i> , Consultant
M. P. McHale , McHale & Associates, Inc.	R. E. Sommerlad , <i>Honorary Member</i> , Consultant

PTC 10 COMMITTEE — AXIAL AND CENTRIFUGAL COMPRESSORS

M. Taher , <i>Chair</i> , Bechtel	R. Huntington , Oak Hill Turbo and Associates, LLC
M. Pagano , <i>Secretary</i> , The American Society of Mechanical Engineers	R. Kurz , Solar Turbines, Inc.
L. Baldassarre , Baker Hughes	M. Sandberg , Consultant
C. Beckers , Atlas Copco Energas GmbH	M. Scholtysik , MAN Energy Solutions Schweiz AG
Y. Biba , Siemens Energy	H. Weyermann , Consultant
K. Brun , Elliot Group	E. Toci , <i>Alternate</i> , Baker Hughes
F. Evans , Consultant	

CORRESPONDENCE WITH THE PTC COMMITTEE

General. ASME codes and standards are developed and maintained by committees with the intent to represent the consensus of concerned interests. Users of ASME codes and standards may correspond with the committees to propose revisions or cases, report errata, or request interpretations. Correspondence for this Code should be sent to the staff secretary noted on the committee's web page, accessible at <https://go.asme.org/PTCcommittee>.

Revisions and Errata. The committee processes revisions to this Code on a continuous basis to incorporate changes that appear necessary or desirable as demonstrated by the experience gained from the application of the Code. Approved revisions will be published in the next edition of the Code.

In addition, the committee may post errata on the committee web page. Errata become effective on the date posted. Users can register on the committee web page to receive e-mail notifications of posted errata.

This Code is always open for comment, and the committee welcomes proposals for revisions. Such proposals should be as specific as possible, citing the paragraph number(s), the proposed wording, and a detailed description of the reasons for the proposal, including any pertinent background information and supporting documentation.

Cases

(a) The most common applications for cases are

(1) to permit early implementation of a revision based on an urgent need

(2) to provide alternative requirements

(3) to allow users to gain experience with alternative or potential additional requirements prior to incorporation directly into the Code

(4) to permit the use of a new material or process

(b) Users are cautioned that not all jurisdictions or owners automatically accept cases. Cases are not to be considered as approving, recommending, certifying, or endorsing any proprietary or specific design, or as limiting in any way the freedom of manufacturers, constructors, or owners to choose any method of design or any form of construction that conforms to the Code.

(c) A proposed case shall be written as a question and reply in the same format as existing cases. The proposal shall also include the following information:

(1) a statement of need and background information

(2) the urgency of the case (e.g., the case concerns a project that is underway or imminent)

(3) the Code and the paragraph, figure, or table number(s)

(4) the edition(s) of the Code to which the proposed case applies

(d) A case is effective for use when the public review process has been completed and it is approved by the cognizant supervisory board. Approved cases are posted on the committee web page.

Interpretations. Upon request, the committee will issue an interpretation of any requirement of this Code. An interpretation can be issued only in response to a request submitted through the online Interpretation Submittal Form at <https://go.asme.org/InterpretationRequest>. Upon submitting the form, the inquirer will receive an automatic e-mail confirming receipt.

ASME does not act as a consultant for specific engineering problems or for the general application or understanding of the Code requirements. If, based on the information submitted, it is the opinion of the committee that the inquirer should seek assistance, the request will be returned with the recommendation that such assistance be obtained. Inquirers can track the status of their requests at <https://go.asme.org/Interpretations>.

ASME procedures provide for reconsideration of any interpretation when or if additional information that might affect an interpretation is available. Further, persons aggrieved by an interpretation may appeal to the cognizant ASME committee or subcommittee. ASME does not "approve," "certify," "rate," or "endorse" any item, construction, proprietary device, or activity.

Interpretations are published in the ASME Interpretations Database at <https://go.asme.org/Interpretations> as they are issued.

Committee Meetings. The PTC Standards Committee regularly holds meetings that are open to the public. Persons wishing to attend any meeting should contact the secretary of the committee. Information on future committee meetings can be found on the committee web page at <https://go.asme.org/PTCcommittee>.

Section 1

Object and Scope

1-1 OBJECT

The object of this Code is to provide a test procedure to determine the thermodynamic performance of an axial or centrifugal compressor doing work on a gas of known or measurable properties under specified conditions.

This Code is written to provide a test procedure, which will yield the highest level of accuracy consistent with the best engineering knowledge and practice currently available. Nonetheless, no single universal value of the uncertainty is, or should be, expected to apply to every test. The uncertainty associated with any individual ASME PTC 10 test will depend on practical choices made in terms of instrumentation and methodology. Rules are provided to estimate the uncertainty for individual tests.

The expectation of the Code is that a compressor performance test will be executed in a shop or factory environment to provide for the special instrumentation, calibration requirements, meter run designs, and other controlled test conditions needed by the Code. This Code may be applied to the extent that its requirements are satisfied elsewhere, such as at a user's site or field installation.

An important assumption of this Code is that the performance of a compressor may be determined either by testing at conditions that are close to those that are specified, including gas composition, pressures, and temperatures, or by testing at alternative conditions that preserve key design parameters of the compressor. Such alternative conditions may allow the test to be conducted with a suitable test gas, at suitable test pressures and temperatures, at a suitable test speed and a flow rate that preserve similitude between the specified conditions and the scaled test conditions. These alternative conditions require that the ratio of the inlet specific volume versus the discharge specific volume at test conditions and at specified conditions is within permissible tolerance. These alternative conditions also require that the nondimensional flow rate (i.e., the flow coefficient) at the test conditions and at specified conditions is within a permissible tolerance. By maintaining similitude between test conditions and specified conditions, the Code assumes that the results of the test, including flow rate, work, and efficiency, can be converted from test conditions to specified conditions.

1-2 SCOPE

1-2.1 General

The scope of this Code includes instructions on test arrangement and instrumentation, test procedure, and methods for evaluation and reporting of final results.

This Code provides rules for establishing the following quantities, corrected as necessary to represent expected performance under specified operating conditions with the specified gas:

- (a) quantity of gas delivered
- (b) pressure rise produced
- (c) volume reduction ratio
- (d) polytropic work
- (e) shaft power required
- (f) polytropic efficiency
- (g) surge point
- (h) choke point

Other than providing methods for calculating mechanical power losses, this Code does not cover rotor dynamics or other mechanical performance parameters.

1-2.2 Compressor Arrangements

This Code is designed to allow the testing of single- or multiple-casing axial or centrifugal compressors or combinations thereof, with one or more sections per casing and with sidestreams.