

This is a preview of "ISO 28300:2008". [Click here to purchase the full version from the ANSI store.](#)

First edition
2008-06-15

Petroleum, petrochemical and natural gas industries — Venting of atmospheric and low-pressure storage tanks

Industries du pétrole, de la pétrochimie et du gaz naturel — Ventilation des réservoirs de stockage à pression atmosphérique et à basse pression



Reference number
ISO 28300:2008(E)

© ISO 2008

This is a preview of "ISO 28300:2008". [Click here to purchase the full version from the ANSI store.](#)

PDF disclaimer

This PDF file may contain embedded typefaces. In accordance with Adobe's licensing policy, this file may be printed or viewed but shall not be edited unless the typefaces which are embedded are licensed to and installed on the computer performing the editing. In downloading this file, parties accept therein the responsibility of not infringing Adobe's licensing policy. The ISO Central Secretariat accepts no liability in this area.

Adobe is a trademark of Adobe Systems Incorporated.

Details of the software products used to create this PDF file can be found in the General Info relative to the file; the PDF-creation parameters were optimized for printing. Every care has been taken to ensure that the file is suitable for use by ISO member bodies. In the unlikely event that a problem relating to it is found, please inform the Central Secretariat at the address given below.



COPYRIGHT PROTECTED DOCUMENT

© ISO 2008

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

Published in Switzerland

This is a preview of "ISO 28300:2008". [Click here to purchase the full version from the ANSI store.](#)

Contents

Page

Foreword.....	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms, definitions and abbreviated terms	1
4 Non-refrigerated aboveground tanks	4
4.1 General.....	4
4.2 Causes of overpressure or vacuum.....	4
4.3 Determination of venting requirements.....	7
4.4 Means of venting.....	18
4.5 Considerations for tanks with potentially flammable atmospheres.....	19
4.6 Relief-device specification.....	20
4.7 Installation of venting devices	22
5 Refrigerated aboveground and belowground tanks	23
5.1 General.....	23
5.2 Causes of overpressure or vacuum.....	23
5.3 Relief-device specification.....	26
5.4 Installation of venting devices	26
6 Testing of venting devices.....	27
6.1 General.....	27
6.2 Flow-test apparatus	28
6.3 Method for determining capacities	29
6.4 Production testing	33
7 Manufacturer's documentation and marking of venting devices	34
7.1 Documentation.....	34
7.2 Marking	34
Annex A (informative) Alternative calculation of normal venting requirements	36
Annex B (informative) Basis of emergency venting for Tables 7 and 8	45
Annex C (informative) Types and operating characteristics of venting devices.....	49
Annex D (informative) Basis of sizing equations	58
Annex E (informative) Basis for normal out-breathing and normal inbreathing	70
Annex F (informative) Guidance for inert-gas blanketing of tanks for flashback protection.....	72
Bibliography	75

This is a preview of "ISO 28300:2008". [Click here to purchase the full version from the ANSI store.](#)

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 28300 was prepared by Technical Committee ISO/TC 67, *Materials, equipment and offshore structures for petroleum, petrochemical and natural gas industries*, Subcommittee SC 6, *Processing equipment and systems*.

This is a preview of "ISO 28300:2008". [Click here to purchase the full version from the ANSI store.](#)

Introduction

This International Standard was developed from the 5th edition of API Std 2000 and EN 14015:2005, with the intent that the 6th edition of API Std 2000 be identical to this International Standard.

This International Standard has been developed from the accumulated knowledge and experience of qualified engineers of the oil, petroleum, petrochemical, chemical and general bulk liquid storage industry.

Engineering studies of a particular tank can indicate that the appropriate venting capacity for the tank is not the venting capacity estimated in accordance with this International Standard. The many variables associated with tank-venting requirements make it impractical to set forth definite, simple rules that are applicable to all locations and conditions.

In this International Standard, where practical, US Customary (USC) units are included in parentheses or in separate tables, for information.