

This document is a preview generated by EVS

Petroleum, petrochemical and natural gas industries - Plate-type heat exchangers - Part 2: Brazed aluminium plate-fin heat exchangers

Petroleum, petrochemical and natural gas industries
- Plate-type heat exchangers - Part 2: Brazed
aluminium plate-fin heat exchangers

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN ISO 15547-2:2005 sisaldab Euroopa standardi EN ISO 15547-2:2005 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 28.12.2005 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN ISO 15547-2:2005 consists of the English text of the European standard EN ISO 15547-2:2005.</p> <p>This document is endorsed on 28.12.2005 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
--	---

<p>Käsitlusala: This part of ISO 15547 gives requirements and recommendations for the mechanical design, materials selection, fabrication, inspection, testing, and preparation for shipment of brazed aluminium plate-fin heat exchangers for use in petroleum, petrochemical and natural gas industries.</p>	<p>Scope: This part of ISO 15547 gives requirements and recommendations for the mechanical design, materials selection, fabrication, inspection, testing, and preparation for shipment of brazed aluminium plate-fin heat exchangers for use in petroleum, petrochemical and natural gas industries.</p>
---	---

ICS 27.060.30, 75.180.20

Võtmesõnad: exchangers, heat exchangers, materials specification, natural gas, natural gas extraction, natural gas industries, oil industries, oil production, petroleum, plate heat exchangers, production, specification (approval), specifications, testing

EUROPEAN STANDARD

EN ISO 15547-2

NORME EUROPÉENNE

EUROPÄISCHE NORM

November 2005

ICS 27.060.30; 75.180.20

Supersedes EN ISO 15547:2001

English Version

**Petroleum, petrochemical and natural gas industries - Plate-type
heat exchangers - Part 2: Brazed aluminium plate-fin heat
exchangers (ISO 15547-2:2005)**

Industries du pétrole, de la pétrochimie et du gaz naturel -
Echangeurs thermiques à plaques - Partie 2: Echangeurs
thermiques à plaques en aluminium brasé (ISO 15547-
2:2005)

Erdöl-, petrochemische und Erdgasindustrie -
Plattenwärmetauscher - Teil 2: Gelötete Rippen-Platten
Wärmeaustauscher aus Aluminium (ISO 15547-2:2005)

This European Standard was approved by CEN on 28 October 2005.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

Management Centre: rue de Stassart, 36 B-1050 Brussels

Foreword

This document (EN ISO 15547-2:2005) has been prepared by Technical Committee ISO/TC 67 "Materials, equipment and offshore structures for petroleum and natural gas industries" in collaboration with Technical Committee CEN/TC 12 "Materials, equipment and offshore structures for petroleum, petrochemical and natural gas industries", the secretariat of which is held by AFNOR.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by May 2006, and conflicting national standards shall be withdrawn at the latest by May 2006.

This document supersedes EN ISO 15547:2001.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

Endorsement notice

The text of ISO 15547-2:2005 has been approved by CEN as EN ISO 15547-2:2005 without any modifications.

**Petroleum, petrochemical and natural gas
industries — Plate-type heat
exchangers —**

Part 2:
**Brazed aluminium plate-fin heat
exchangers**

*Industries du pétrole, de la pétrochimie et du gaz naturel — Échangeurs
thermiques à plaques —*

Partie 2: Échangeurs thermiques à plaques en aluminium brasé



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.

This document is a preview generated by EVS

© ISO 2005

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

Contents

Page

Foreword.....	iv
Introduction.....	v
1 Scope.....	1
2 Terms and definitions.....	1
3 General.....	3
4 Proposal information required.....	3
5 Drawings and other data requirements.....	4
6 Design.....	5
7 Materials.....	7
8 Fabrication.....	8
9 Inspection and testing.....	12
10 Preparation for shipment.....	14
Annex A (informative) Recommended practice.....	15
Annex B (informative) Plate-fin heat exchanger checklist.....	18
Annex C (informative) Plate-fin heat exchanger data sheets.....	19
Bibliography.....	26

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 15547-2 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 first edition of ISO 15547-2, together with ISO 15547-1, cancels and replaces ISO 15547:2000, of which it constitutes a technical revision.

ISO 15547 consists of the following parts, under the general title *Petroleum, petrochemical and natural gas industries — Plate-type heat exchangers*:

- *Part 1: Plate-and-frame heat exchangers*
- *Part 2: Brazed aluminium plate-fin heat exchangers*

Introduction

Some of the requirements within this part of ISO 15547 have been extracted from the standards of the brazed aluminium plate-fin heat exchanger manufacturers' association (ALPEMA).

Users of this part of ISO 15547 should be aware that further or differing requirements may be needed for individual applications. This part of ISO 15547 is not intended to inhibit a vendor from offering, or the purchaser from accepting, alternative equipment or engineering solutions for the individual application. This may be particularly applicable where there is an innovative or developing technology. Where an alternative is offered, the vendor should identify any variations from this part of ISO 15547 and provide details.

A recommended practice is included within this part of this International Standard (see Annex A).

This part of ISO 15547 requires the purchaser to specify certain details and features.

A bullet (●) at the beginning of a clause or subclause indicates a requirement for the purchaser to make a decision or provide information (for information, a checklist is provided in Annex B).

In this part of ISO 15547, where practical, US Customary units are included in parentheses for information.

Petroleum, petrochemical and natural gas industries — Plate-type heat exchangers —

Part 2: Brazed aluminium plate-fin heat exchangers

1 Scope

This part of ISO 15547 gives requirements and recommendations for the mechanical design, materials selection, fabrication, inspection, testing, and preparation for shipment of brazed aluminium plate-fin heat exchangers for use in petroleum, petrochemical and natural gas industries.

2 Terms and definitions

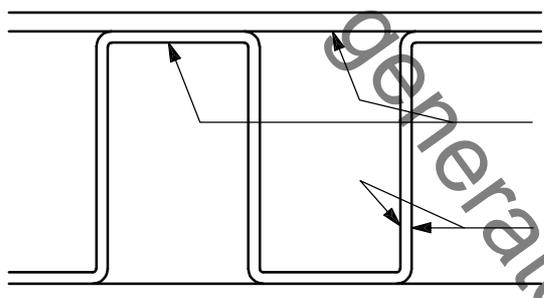
For the purposes of this document, the following terms and definitions apply.

2.1

heat transfer area

sum of the primary and secondary heat transfer surface areas of all heat-transfer passages in contact with a stream

See Figure 1.



Key

- 1 primary heat transfer surface
- 2 secondary heat transfer surface

NOTE 1 The primary heat transfer surface within the plate-fin heat exchanger consists of the bare parting sheet and the fin base directly brazed to the parting sheet.

NOTE 2 The secondary heat transfer surface is provided by the fins. This area includes both sides of the fins where they are in contact with the fluid.

Figure 1 — Cross-sectional view of fin and parting sheet — Heat transfer area