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STANDARDS
Australia



Petroleum and natural gas industries — Glass-reinforced plastics (GRP) piping

Part 3: System design



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AS ISO 14692.3:2022

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Preface

This Standard was prepared by the Standards Australia Committee ME-092, Materials, equipment, structures and related services for petroleum, petrochemical and natural gas industries.

The objective of this document is to outline requirements for the design of GRP piping systems. The requirements and recommendations apply to layout dimensions, hydraulic design, structural design, detailing, fire endurance, spread of fire and emissions, and control of electrostatic discharge.

This document is intended to be read in conjunction with AS ISO 14692.1:2022.

This document is identical with, and has been reproduced from, ISO 14692-3:2017, *Petroleum and natural gas industries — Glass-reinforced plastics (GRP) piping — Part 3: System design*.

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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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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For an explanation on the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

This second edition cancels and replaces the first edition (ISO 14692-3:2002), which has been technically revised. It also incorporates the Technical Corrigendum ISO 14692-3:2002/Cor 1:2005.

This document 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*.

A list of all the parts of ISO 14692 can be found on the ISO website.

Introduction

The objective of this document is to ensure that piping systems, when designed using the components qualified in ISO 14692-2, will meet the specified performance requirements. These piping systems are designed for use in oil and natural gas industry processing and utility service applications. The main users of the document will be the principal, design contractors, suppliers contracted to do the design, certifying authorities and government agencies.

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Australian Standard®

Petroleum and natural gas industries — Glass-reinforced plastics (GRP) piping

Part 3: System design

1 Scope

This document gives guidelines for the design of GRP piping systems. The requirements and recommendations apply to layout dimensions, hydraulic design, structural design, detailing, fire endurance, spread of fire and emissions and control of electrostatic discharge.

This document is intended to be read in conjunction with ISO 14692-1.

Guidance on the use of this document can be found in [Figure 1](#), which is a more detailed flowchart of steps 5 and 6 in ISO 14692-1:2017, Figure 1.

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