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**Ships and marine technology —  
Inflatable buoyancy support systems  
against flooding of ships —**

**Part 1:  
Gas supply system**

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# Contents

	Page
<b>Foreword</b> .....	<b>iv</b>
<b>Introduction</b> .....	<b>v</b>
<b>1 Scope</b> .....	<b>1</b>
<b>2 Normative references</b> .....	<b>1</b>
<b>3 Terms and definitions</b> .....	<b>1</b>
<b>4 General requirements</b> .....	<b>2</b>
4.1 General .....	2
4.2 Media .....	2
4.3 Separation from habitable spaces .....	3
<b>5 Installation</b> .....	<b>3</b>
5.1 General .....	3
5.2 Fastening .....	3
5.3 Pressure regulator .....	3
5.4 Location of the gas cylinders .....	3
<b>6 Activation</b> .....	<b>3</b>
6.1 General .....	3
6.2 Engine shutdown .....	3
6.3 Displayed information .....	3
6.4 Warning for gas media .....	4
<b>Bibliography</b> .....	<b>5</b>

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## Foreword

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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](http://www.iso.org/directives)).

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This document was prepared by Technical Committee ISO/TC 8, *Ships and marine technology*, Subcommittee SC 8, *Ship design*.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at [www.iso.org/members.html](http://www.iso.org/members.html).

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## Introduction

This document is intended to support the development and technical implementation of various types of buoyancy support systems.

In case of marine accidents, such as collisions and groundings, excessive damage and flooding can cause the ship to sink, capsize or impede the use of its essential navigation equipment. As a ship has watertight bulkheads, doors, hatches and other equipment, the consequences of flooding accidents can usually be mitigated at the early phases of the accident. Subsequently, the progressive flooding after an important accident can cause the sinking or capsizing of the ship.

To counter these problems, inflatable buoyancy support systems can be used, which are composed of a gas supply system and a buoyancy chamber, where the gas supply system provides the medium for the inflation of the buoyancy chamber. A fixed fire extinguisher can be used as a gas inlet when the ship is at risk of sinking or overturning. When fire extinguishers are used to supply the media into the buoyancy chamber, additional means must be available not to impair fire-fighting, following IMO SOLAS, Chapter II-2A, Regulation 4. Buoyancy chambers have various shapes and capacities to aid a damaged ship's buoyancy.

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