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Second edition  
2018-03

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## Cryogenic vessels — Hoses

*Réipients cryogéniques — Tuyaux flexibles*



Reference number  
ISO 21012:2018(E)

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ISO copyright office  
CP 401 • Ch. de Blandonnet 8  
CH-1214 Vernier, Geneva  
Phone: +41 22 749 01 11  
Fax: +41 22 749 09 47  
Email: [copyright@iso.org](mailto:copyright@iso.org)  
Website: [www.iso.org](http://www.iso.org)

Published in Switzerland

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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 ISO/TC 220, *Cryogenic vessels*.

This second edition cancels and replaces the first edition (ISO 21012:2006), which has been technically revised.

This edition includes the following significant changes with respect to the previous edition:

- Subclause [4.2](#): Added “any austenitic stainless steel hoses shall be annealed after formation for hydrogen service.”;
- Subclause [4.4.3](#): Replaced shall with should;
- Subclause [4.4.3](#): Replaced 50 000 cycles with 10 000 cycles;
- Subclause [4.4.3](#): Added “This test is only required if the flexible hose is subject to multiple wide/significant moves when under pressure.”;
- Subclause [5.3.2.1](#): Replaced 50 000 cycles with 10 000 cycles;
- Subclause [5.3.2.2](#): Replaced 50 000 cycles with 10 000 cycles;
- [Annex B](#): Changed from Normative to Informative;
- [Annex C](#): Changed from Normative to Informative;
- [Annex C](#): Changed last sentence in second last paragraph to “Sufficient liquid nitrogen shall be used to ensure the flexible hose assembly reaches liquid nitrogen temperature.”.