



**International
Standard**

ISO 6182-18

**Fire protection — Automatic
sprinkler system —**

Part 18:

**Requirements and test methods for
flexible sprinkler hose**

*Protection contre l'incendie — Systèmes d'extinction
automatiques du type sprinkler —*

*Partie 18: Exigences et méthodes d'essai pour sprinkler à tuyau
flexible*

[ISO 6182-18:2025](https://standards.iteh.ai/standards/iso/6182-18:2025)

<https://standards.iteh.ai/catalog/standards/iso/b7ee7788-9e2d-4486-bad9-1c04a06984d0/iso-6182-18-2025>

**First edition
2025-08**

iTeh Standards
(<https://standards.iteh.ai>)
Document Preview

[ISO 6182-18:2025](https://standards.iteh.ai/catalog/standards/iso/b7ee7788-9e2d-4486-bad9-1c04a06984d0/iso-6182-18-2025)

<https://standards.iteh.ai/catalog/standards/iso/b7ee7788-9e2d-4486-bad9-1c04a06984d0/iso-6182-18-2025>



COPYRIGHT PROTECTED DOCUMENT

© ISO 2025

All rights reserved. Unless otherwise specified, or required in the context of its implementation, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Email: copyright@iso.org
Website: www.iso.org

Published in Switzerland

Contents

| | Page |
|---|----------|
| Foreword | v |
| 1 Scope | 1 |
| 2 Normative references | 1 |
| 3 Terms and definitions | 1 |
| 4 Product consistency | 3 |
| 5 Requirements | 3 |
| 5.1 Nominal sizes..... | 3 |
| 5.2 Rated working pressure..... | 3 |
| 5.3 Dimensions..... | 3 |
| 5.3.1 Flexible hose length..... | 3 |
| 5.3.2 Inlet fitting..... | 3 |
| 5.3.3 Outlet fitting..... | 3 |
| 5.3.4 End connections..... | 3 |
| 5.3.5 Minimum inside diameter..... | 3 |
| 5.4 Materials..... | 4 |
| 5.5 Tolerance..... | 5 |
| 5.6 Performance..... | 5 |
| 5.6.1 Dimensional examination..... | 5 |
| 5.6.2 Change of length..... | 5 |
| 5.6.3 Leakage..... | 5 |
| 5.6.4 Hydrostatic strength..... | 5 |
| 5.6.5 Vacuum..... | 5 |
| 5.6.6 Pressure cycling..... | 5 |
| 5.6.7 U-bend fatigue..... | 6 |
| 5.6.8 Arc bend fatigue..... | 6 |
| 5.6.9 Anchoring components mechanical strength..... | 6 |
| 5.6.10 Vibration..... | 6 |
| 5.6.11 High pressure flow..... | 6 |
| 5.6.12 Pressure loss (equivalent length determination)..... | 6 |
| 5.6.13 High temperature exposure..... | 6 |
| 5.6.14 Low temperature exposure..... | 6 |
| 5.6.15 Salt spray corrosion..... | 7 |
| 5.6.16 Moist ammonia air stress cracking..... | 7 |
| 5.6.17 Stress corrosion cracking..... | 7 |
| 5.6.18 Metallic coating thickness..... | 7 |
| 6 Test methods | 7 |
| 6.1 Dimensional examination test..... | 7 |
| 6.2 Change of length test..... | 7 |
| 6.3 Leakage test..... | 7 |
| 6.4 Hydrostatic strength test..... | 8 |
| 6.5 Vacuum test..... | 8 |
| 6.6 Pressure cycling test..... | 8 |
| 6.6.1 Test option 1..... | 8 |
| 6.6.2 Test option 2..... | 8 |
| 6.7 U-bend fatigue test..... | 9 |
| 6.8 Arc bend fatigue test..... | 9 |
| 6.9 Anchoring components mechanical strength test..... | 10 |
| 6.10 Vibration test..... | 10 |
| 6.11 High pressure flow test..... | 12 |
| 6.12 Pressure/Friction loss test..... | 12 |
| 6.13 High temperature exposure test..... | 13 |
| 6.14 Low temperature exposure test..... | 13 |
| 6.15 Salt spray corrosion test..... | 13 |

ISO 6182-18:2025(en)

| | | |
|----------------------------|---|-----------|
| 6.16 | Moist ammonia air stress cracking test..... | 14 |
| 6.17 | Stress corrosion cracking test..... | 14 |
| 6.18 | Metallic coating thickness test..... | 15 |
| 6.18.1 | General..... | 15 |
| 6.18.2 | Gravimetric determination of the mass per area..... | 15 |
| 6.18.3 | Measurement of coating thickness by X-ray spectrometry..... | 15 |
| 6.18.4 | Magnetic determination of coating thickness..... | 15 |
| 6.18.5 | Other methods..... | 15 |
| 7 | Markings..... | 15 |
| 8 | Manufacturer's installation instructions..... | 16 |
| 9 | Manufacturer's quality control testing and requirements..... | 16 |
| Annex A (normative) | Tolerances..... | 17 |
| Bibliography..... | | 18 |

iTeh Standards (<https://standards.iteh.ai>) Document Preview

[ISO 6182-18:2025](https://standards.iteh.ai/catalog/standards/iso/b7ee7788-9e2d-4486-bad9-1c04a06984d0/iso-6182-18-2025)

<https://standards.iteh.ai/catalog/standards/iso/b7ee7788-9e2d-4486-bad9-1c04a06984d0/iso-6182-18-2025>