# INTERNATIONAL STANDARD

**ISO 7751**

Second edition
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# Rubber and plastics hoses and hose assemblies — Ratios of proof and burst pressure to design working pressure

*Tuyaux et flexibles en caoutchouc et en plastique — Rapports des pressions d'épreuve et d'éclatement à la pression de service*

Reference number
ISO 7751:1991(E)

## 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.

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.

International Standard ISO 7751 was prepared by Technical Committee ISO/TC 45, *Rubber and rubber products*, Sub-Committee SC 1, *Hoses (rubber and plastics)*.

This second edition cancels and replaces the first edition (ISO 7751:1983), of which it constitutes a technical revision.



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# Rubber and plastics hoses and hose assemblies — Ratios of proof and burst pressure to design working pressure

## 1 Scope

This International Standard specifies ratios of proof pressure and minimum burst pressure to design working pressure for various categories of hose service. The methods and procedures to perform the proof and burst tests are specified in ISO 1402.

## 2 Normative reference

The following standard contains provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the edition indicated was valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent edition of the standard indicated below.

Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 1402:1984, *Rubber and plastics hoses and hose assemblies — Hydrostatic testing.*

## 3 Proof pressure ratio

The ratio of proof pressure to design working pressure shall, unless otherwise specified, be in accordance with table 1.

## 4 Minimum burst pressure ratio

The ratio of minimum burst pressure to design working pressure shall, unless otherwise specified, be in accordance with table 1.

**Table 1 — Ratios of proof and minimum burst pressure to design working pressure**

| No. | Type of service (for guidance only) | Ratio of proof pressure to design working pressure | Ratio of minimum burst pressure to design working pressure |
|---|---|---|---|
| 1 | Water hose, maximum working pressure 1 MPa | 1,5 | 3,0 |
| 2 | Hose for all other liquids, solid materials suspended in liquids or air, and water hose, working pressure over 1 MPa | 2,0 | 4,0 |
| 3 | Hose for compressed air and other gases | 2,0 | 4,0 |
| 4 | Hose for liquid media that change into the gaseous state when subjected to a reduction in pressure, i.e. released to atmosphere | 2,5 | 5,0 |
| 5 | Steam hose | 5,0 | 10,0 |
| 6 | Jetting hose | 1,5 | 2,5 |

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**Descriptors:** rubber products, plastics products, hoses, rubber hoses, tests, high pressure tests.

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