INTERNATIONAL STANDARD

ISO 4074-6

Third edition
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Rubber condoms —

Part 6:
Determination of bursting volume and pressure

Préservatifs masculins en caoutchouc —
Partie 6: Détermination du volume et de la pression d'éclatement

Reference number
ISO 4074-6:1996(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 4074-6 was prepared by Technical Committee ISO/TC 157, *Mechanical contraceptives*.

This third edition cancels and replaces the second edition (ISO 4074-6:1984), of which it constitutes a technical revision.

ISO 4074 consists of the following parts, under the general title *Rubber condoms*:

— *Part 1: Requirements*

— *Part 2: Determination of length*

— *Part 3: Determination of width*

— *Part 5: Testing for holes — Water leak test*

— *Part 6: Determination of bursting volume and pressure*

— *Part 7: Oven conditioning*

— *Part 9: Determination of tensile properties*

— *Part 10: Packaging and labelling — Condoms in consumer packages*

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Annex A of this part of ISO 4074 is for information only.

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Rubber condoms —

Part 6:
Determination of bursting volume and pressure

1 Scope

This part of ISO 4074 specifies the method of determining the bursting volume and pressure of rubber condoms.

2 Principle

A specified length of the condom is inflated with air and the volume of air used for inflation and the pressure at the moment of bursting are recorded.

NOTE 1 Burst volume is the volume of air that has flowed into the condom until the moment of burst.

3 Apparatus

Inflation apparatus, as shown in figure 1, suitable for inflating the condom with clean oil-free and moisture-free air at a specified rate, provided with equipment for measuring volume and pressure and having the features in 3.1 to 3.4.

If an inflation cabinet is used, it is recommended that it have a window for viewing the condom during inflation, and that it be of sufficient size to allow the condom to expand freely without touching any part of the cabinet.

3.1 Pressure gauge, capable of measuring the pressure at burst of the condom to an accuracy of ± 0,05 kPa, configured such that there is no pressure differential between the condom and the pressure gauge.

3.2 Apparatus for recording the volume of inflation air, configured such that the volume of air is measured or calculated at the appropriate pressure within the condom and not at the line pressure which may be higher.

Whatever method is used to measure volume, it shall be accurate to ± 0,03 % for volumes greater than 10 dm^3.

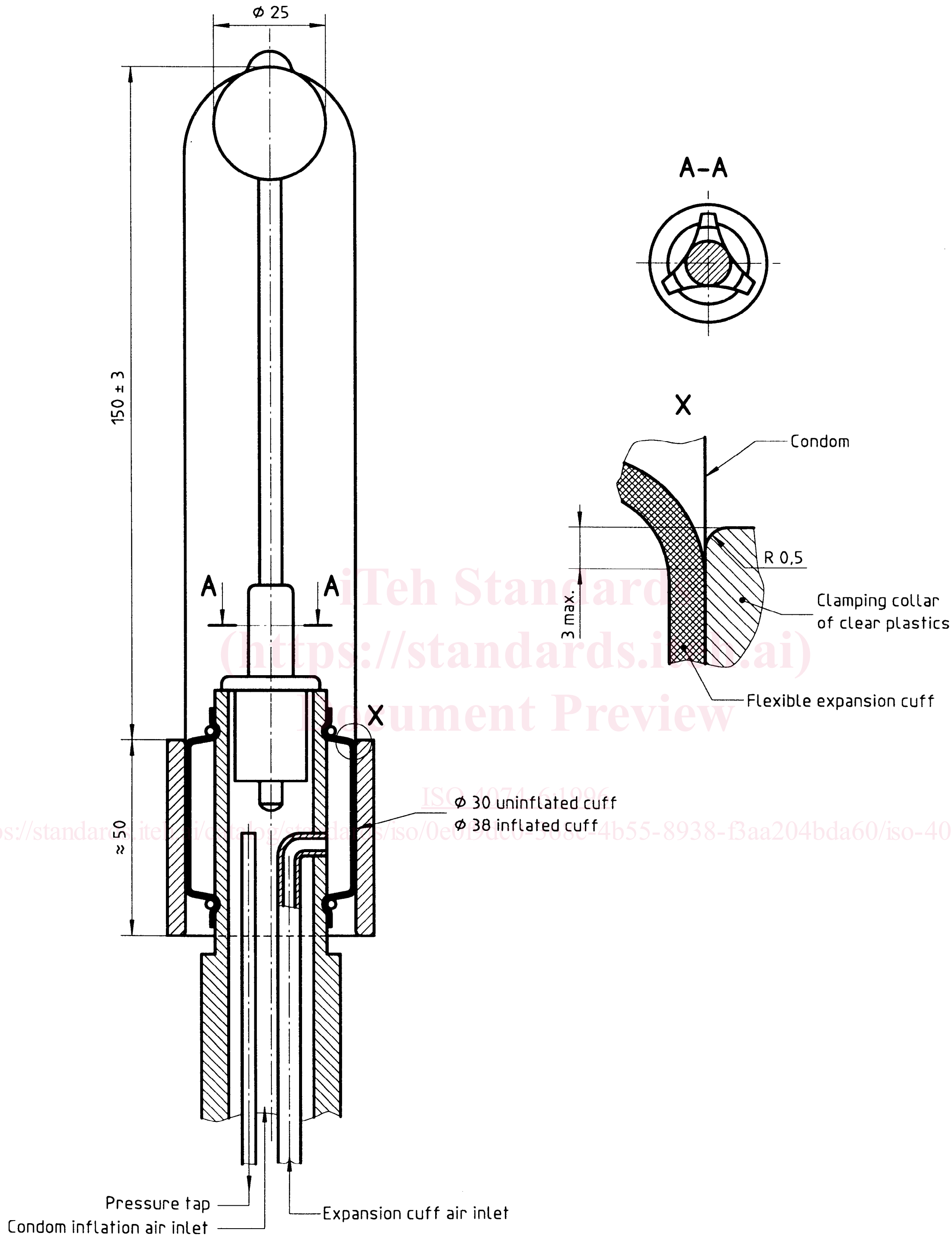
3.3 Rod of suitable length, having a smooth sphere or hemisphere of 25 mm in diameter at its top for hanging the unrolled condom when fixed to the apparatus, and fixed in a position such that when the condom is clamped, the length of the condom remaining for inflation is 150 mm ± 3 mm.

3.4 Clamping ring, having no sharp edges or protrusions.

The clamping ring should not stretch the condom as the clamping ring is placed onto its mount.

When used with an air-inflated cuff mount, the clamping ring should extend no more than approximately 3 mm above the air-inflated cuff, which should deflate to such a diameter that the condom freely rolls over it.

Dimensions in millimetres



NOTE — The figure shows an example. Other types of clamps are also in use.

Figure 1 — Example of suitable apparatus