
International Standard



595/1

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**Reusable all-glass or metal-and-glass syringes
for medical use —
Part 1: Dimensions**

Seringues réutilisables en verre ou en verre et métal à usage médical — Partie 1: Dimensions

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Foreword

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Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council. They are approved in accordance with ISO procedures requiring at least 75 % approval by the member bodies voting.

International Standard ISO 595/1 was prepared by Technical Committee ISO/TC 84, *Syringes for medical use and needles for injections*.

Together with ISO 595/2 it cancels and replaces ISO Recommendation R 595-1967, of which it constitutes a technical revision.

Users should note that all International Standards undergo revision from time to time and that any reference made herein to any other International Standard implies its latest edition, unless otherwise stated.

Reusable all-glass or metal-and-glass syringes for medical use — Part 1: Dimensions

1 Scope and field of application

This part of ISO 595 specifies dimensions for reusable all-glass or metal-and-glass syringes for medical use, having a graduated capacity from 1 to 100 ml. It also specifies requirements for the graduated capacity of syringes.

ISO 595/2 specifies the design, the performance requirements and the corresponding test methods for reusable syringes.

NOTE — The term "all-glass syringe" relates to syringes with a barrel and piston made entirely of glass, with either a glass or a metal nozzle. The term "metal-and-glass syringe" relates to syringes with a glass barrel, a metal nozzle and a piston which may be either metal or partially metal.

2 References

ISO 594, *Conical fittings with a 6 % (Luer) taper for syringes, needles and certain other medical equipment* —

Part 1: General requirements.

*Part 2: Lock fittings.*¹⁾

ISO 595/2, *Reusable all-glass or metal-and-glass syringes for medical use — Part 2: Design, performance requirements and tests.*

3 Range of sizes

Syringes shall be designated by their graduated capacity in millilitres. The range of sizes of syringes shall be in accordance with table 1.

4 Capacity of syringes

4.1 Determination of capacity

The capacity corresponding to any scale interval shall be defined by the volume of water at 20 °C expelled from the syringe

when the fiducial line of the piston traverses that interval. The capacity can be conveniently determined by weighing the expelled fluid.

4.2 Tolerance on the graduated capacity and other capacities

The tolerance limits on the graduated capacity and on any capacity greater than half the graduated capacity shall be in accordance with table 1. The tolerance limits on any capacity less than half the graduated capacity shall be $\pm 5\%$ of that capacity or the smallest scale interval, whichever is the greater.

5 Dimensions

5.1 Syringes

The dimensions of all-glass and metal-and-glass syringes shall be as designated in figure 1 and as given in tables 2 and 3.

The dimensions of all-glass syringes shall be as given in table 4 and those of metal-and-glass syringes as given in table 5.

5.2 Barrel

The barrel shall be of such a length that the syringe has a usable capacity of at least 10 % greater than its nominal capacity.

5.3 Bore of nozzle

The dimensions of the bore of the nozzle shall be as given in table 4 for all-glass syringes and as given in table 5 for metal-and-glass syringes.

6 Graduated scale

6.1 Scale

The scale shall be graduated at intervals in accordance with table 1 and as illustrated in figure 2.

1) At present at the stage of draft. (Revision, in part, of ISO/R 594-1967.)