

'CORTO Classic' Kit

Instruction Manual

Safety Precautions

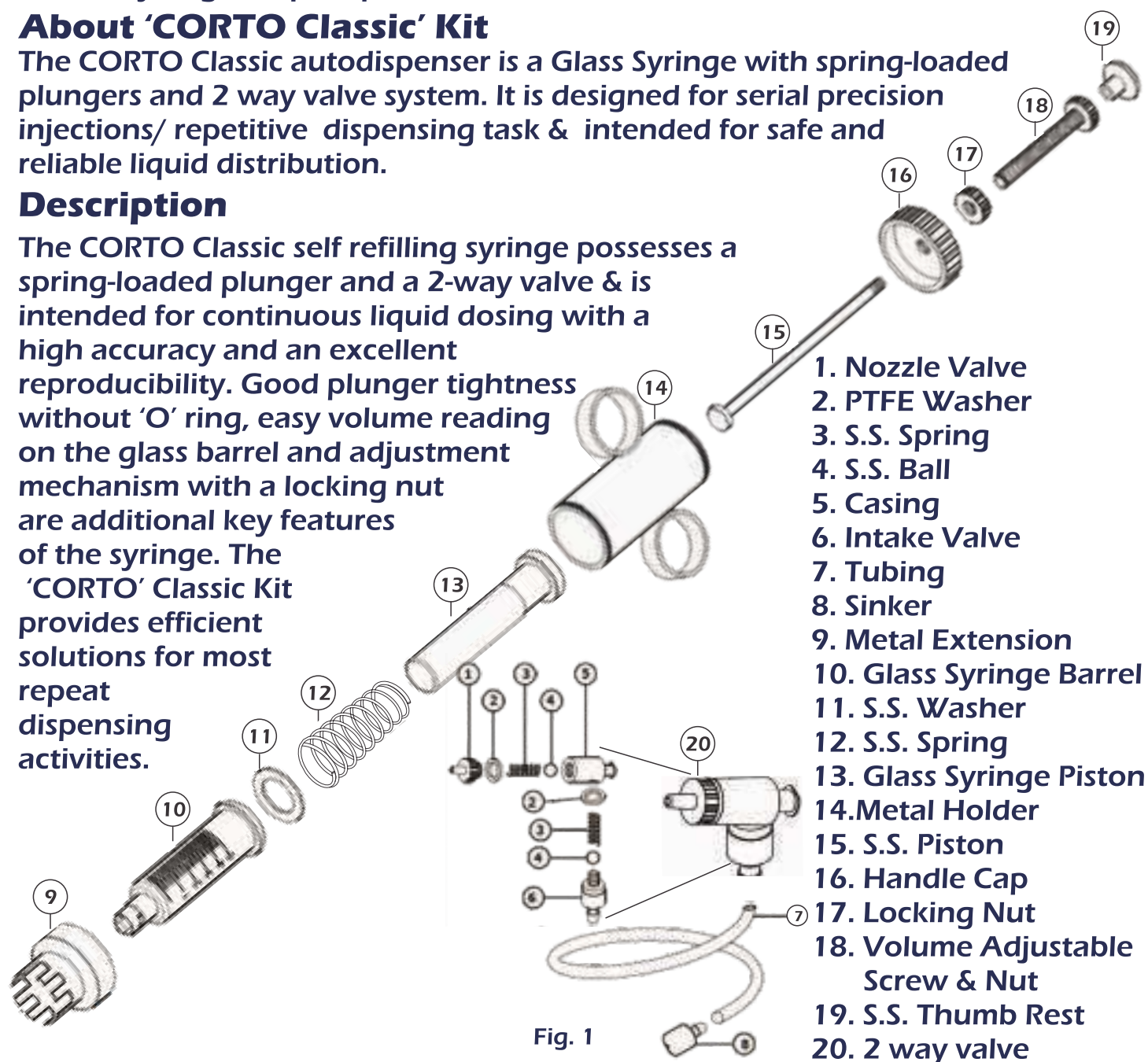
- Read the operating instructions carefully before use. Keep available for future reference
- Observe the manufacturer's recommendations
- Follow the regulations on handling of potentially hazardous reagents
- Before each use, check instrument for perfect working condition
- Assure cleanliness when performing cytotoxic sensitive tests
- Prime, rinse and dry the instrument carefully after each use
- Never try to separate blocked parts by using force
- Possible hand fatigue during serial dispensing and its medical consequences
- Do not use syringe for purposes other than intended for
- A saline environment may hasten replacement of instruments parts
- Use only original spare parts

About 'CORTO Classic' Kit

The CORTO Classic autodispenser is a Glass Syringe with spring-loaded plungers and 2 way valve system. It is designed for serial precision injections/ repetitive dispensing task & intended for safe and reliable liquid distribution.

Description

The CORTO Classic self refilling syringe possesses a spring-loaded plunger and a 2-way valve & is intended for continuous liquid dosing with a high accuracy and an excellent reproducibility. Good plunger tightness without 'O' ring, easy volume reading on the glass barrel and adjustment mechanism with a locking nut are additional key features of the syringe. The 'CORTO' Classic Kit provides efficient solutions for most repeat dispensing activities.



'CORTO' Classic Kit - Contents

The 'CORTO' Classic Kit components includes

- 1) Metal Holder with components (9)
- 2) Glass Syringes 2pcs(10,13)
- 3) Filling Assembly / 2 Way Valve (20)
with Tubing (7) & Sink Valve (8)
- 4) Needles



Fig. 2 (1)

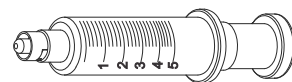


Fig. 2 (2)



Fig. 2 (3)



Fig. 2 (4)

Setting Up & Assembly

Open & dismantle the Metal Extension (9) only as per shown in the Fig 3A. Inside you will find the Washer (11)& the tapered spring (12) as shown in Fig 3B. Remove both of them and keep them on the side. Ensure you do not open any more of the metal holder components unless necessary



Fig. 3A

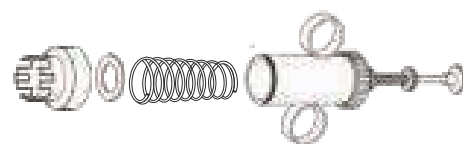


Fig. 3B

Turn the Volume adjustable nut (18)& the locking nut (17) on the metal holder in anticlockwise direction and ensure the SS piston (15) is at the lowest level. This will ensure easy assembly of the glass syringe inside the metal holder. Refer to Fig 4.

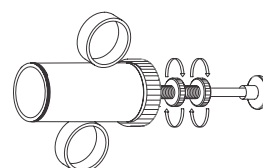


Fig. 4

Disassembled the syringe i.e. remove the plunger (13) from the barrel (10) as shown in Fig 5

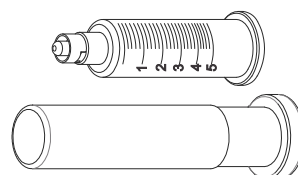


Fig. 5

Insert the Plunger Spring (12) inside the syringe plunger (13). Note the spring is tapered. Insert the spring from the narrow side into the syringe plunger which will rest on the syringe plunger flange. The wide side of the spring will be on top. Refer Fig 6

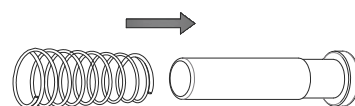


Fig. 6

Insert the syringe barrel (3) inside the metal extension (1) as shown in Fig 7A. Place the SS washer (2) over the flange of the barrel (Fig 7B & Fig 7C). Now insert the syringe plunger with tapered spring inside the syringe barrel (Fig 7D). Ensure the wider side of the tapered spring comes in contact with the SS washer

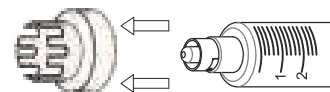


Fig. 7A

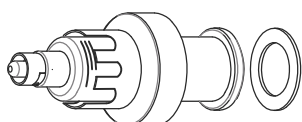


Fig. 7B

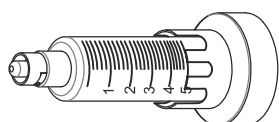


Fig. 7C

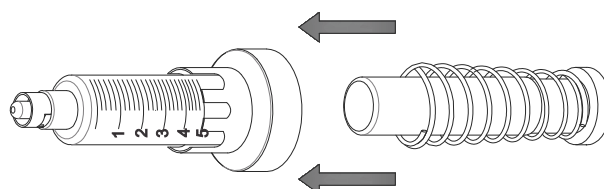


Fig. 7D

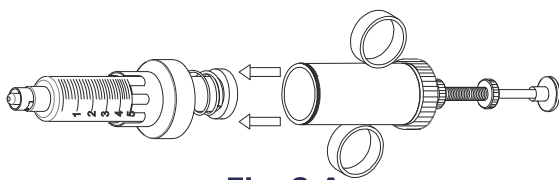


Fig. 8 A

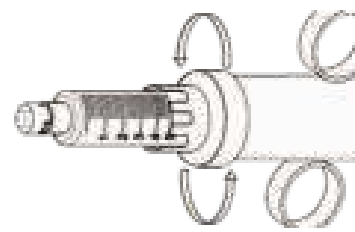


Fig. 8 B

Insert the assembled barrel and plunger inside the metal holder (14) and screw it with the metal extension (9) as shown in Fig 8A & Fig 8B.

You can open and adjust the handle cap (16), if so needed to slightly adjust the fitment as shown in Fig 9.

Rotate the Volume adjustable screw (18) in a clockwise direction to push the glass plunger up the into the glass barrel. Set your desired volume for repetitive dispensing. Rotate the locking nut (17) in the clock wise direction and ensure it touches the bottom of the handle cap (16) so as to keep fixed your desired volume for repetitive dispensing. This will ensure the Volume setting during repetitive dispensing. Refer to Fig 10

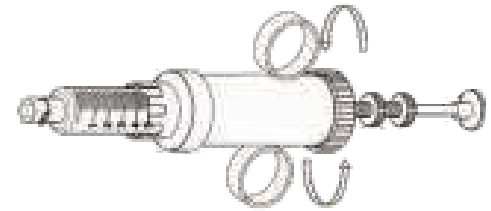


Fig. 9

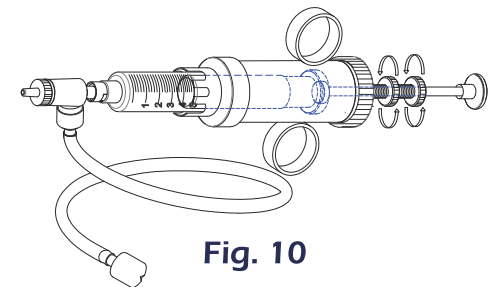


Fig. 10

The Corto Kit Syringe is now ready for use as shown in Fig 11

Operation

Place the filling assembly (20) on the luer lock of the syringe. Since liquid is to be taken from an open flask, connect the sinker to the end of the feed tube and immerse it in the liquid. Refer Fig 12

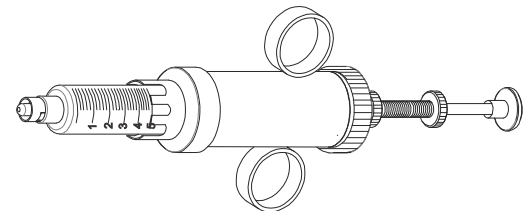


Fig. 11

Volume Setting

See Fig. 7 Untighten locking nut and adjust plunger edge to wanted volume graduation of glass barrel by turning socket. Tighten locking nut again in order to prevent any volume modification during activation of the plunger.

Priming

Activate the plunger until the liquid completely fills up the syringe. For efficient priming, set small volume models to their maximal volume. No air bubble must appear in the transparent glass barrel.

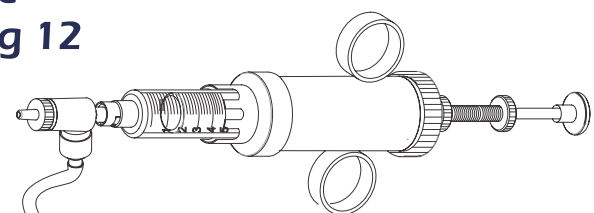


Fig. 12

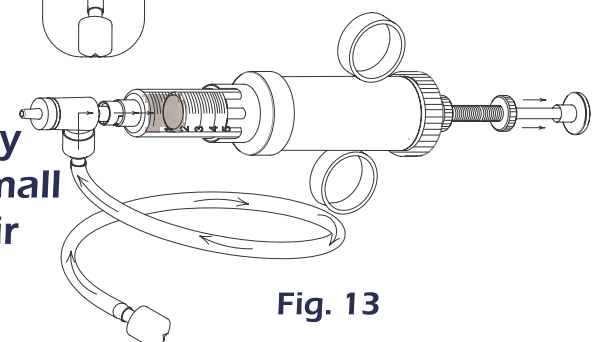


Fig. 13

Dispensing

Attach a Luer Lock cannula on outlet nozzle and push plunger to dispense liquid. The spring-loaded plunger and two way valve assure an immediate automatic instrument filling. Select internal diameter of the cannula in relation with the distributed volume. A too small internal diameter renders the plunger activation more difficult and reduces the instrument performance.

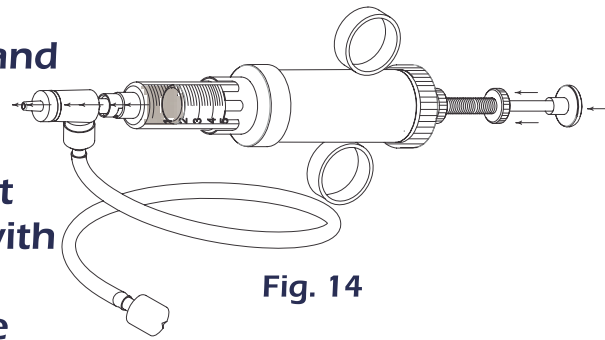


Fig. 14

End of Dosing

When dosing is completed, remove the tubing from the feed source and activate the plunger several times in order to eliminate any residual liquid. Disassemble, clean and dry the instrument parts according to the indications in the "maintenance" chapter. Never store a syringe without prior priming, cleaning and drying

Maintenance Cleaning

The self-refilling CORTO Classic Kit Syringe must be carefully cleaned and dried after each use. Therefore, aspirate an appropriate cleaning solution (water or detergent) and rinse thoroughly. Activate the syringe several times with air to remove residual liquid before disassembling

Disassembling

Remove valve assembly. Hold the handle and unscrew casing in order to remove the glass syringe. Dry the valve assembly (seat, ball), syringe body, barrel and plunger before reassembling and storing.

Sterilization

The CORTO Classic Kit needs to be disassembled before sterilization. Make sure you remove the Glass Syringe from the casing before autoclaving. Autoclaving of each components can be done at 121° C for 20 minutes(1ATM). Do not sterilize an instrument that has not previously been primed cleaned and dried. Correct autoclaving and resulting sterility are the responsibility of the user.

Advantages of 'CORTO Classic' Kit

- Fast and reliable volume setting
- Excellent reproducibility
- Plunger tightness without 'O' ring
- High chemical resistance
- Fully autoclavable at 121°C / 250°F

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