

Chaney Adapters



Congratulations! You have purchased the finest quality precision fluid management device available today. We combine top quality materials with skilled workmanship, ensuring the highest possible performance level of every precision fluid device we manufacture. With proper care and handling, Hamilton Chaney Adapters (p/ns 32146 and 32148) will provide unsurpassed performance in precision liquid handling year after year.

Syringes and needles manufactured by Hamilton Company are intended for scientific research and laboratory use only and are not intended for human *in vivo* use.

The Hamilton Chaney Adapter is a device that assures repetitive and identical syringe plunger location. It eliminates subjective errors when setting a syringe plunger at a specific volume.

Hamilton Company manufactures several types of Chaney Adapters for various applications and syringe models. Each Chaney Adapter is available as an optional accessory for syringes purchased separately.

When you select a syringe for installation into a Chaney Adapter, Hamilton recommends that the maximum pre-set volume does not exceed 80% of the total volume of the syringe. This will facilitate greater ease when handling the syringe. By using 80% or less of the syringes scale length, the overall length of the syringe (with the Chaney Adapter attached) is less cumbersome. Furthermore, the overfill-stop-inject sequence is quicker.

Note: While a Chaney Adapter insures repetitive plunger placement, other conditions may affect sample volume delivery, such as sample viscosity, syringe and needle size, temperature, rate of injection, syringe filling techniques and the condition of the syringe. Also, the Chaney Adapter will not prevent plunger bending that may result from an improperly maintained syringe.

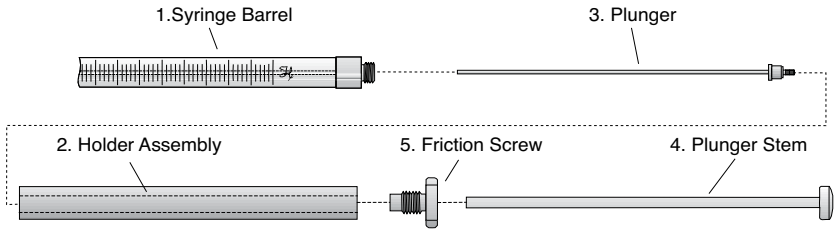
Installing Chaney Adapter Part Number 32146

Install Chaney Adapter (p/n 32146) on any Hamilton Series 800 Microliter™ syringe, or any Hamilton Series 1800 Gastight® syringe. This model uses a collar and a rod plunger assembly to control volume. The rod plunger assembly replaces the standard plunger assembly.

Follow these steps to install the Chaney adapter (p/n 32146). Refer to Figures 1–4 for part numbers (in parentheses) in the text.

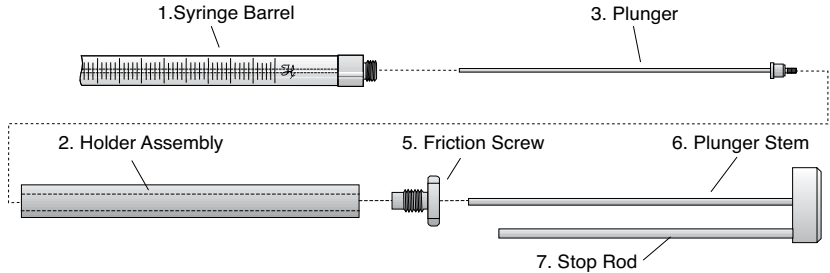
1. Unscrew the syringe barrel (1) from the holder assembly (2). This will expose the plunger (3).
2. Unscrew the plunger (3) from the plunger stem (4) being careful not to misplace the PTFE and metal washers (if present).
3. Loosen the friction screw (5), and remove the plunger stem (4).

Figure 1: Disassembly of Hamilton 800/1800 Series Syringes



4. Push the new plunger stem (6) through the holder assembly, and retighten the friction screw (Figure 2).

Figure 2: Installing the Plunger in the Chaney Adapter

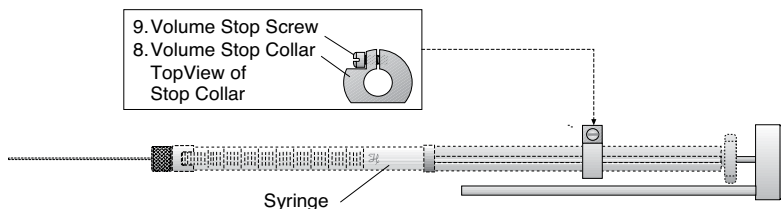


5. Reassemble the PTFE and metal washers (if present) onto the syringe plunger, and thread the plunger onto the plunger rod.

Note: Be sure to pre-wet the PTFE plunger tip of a Gastight® syringe before installing the plunger into the syringe barrel.

6. Insert the plunger into the barrel and thread the syringe barrel into the holder assembly (Figure 3).
7. Loosen the screw (9) on the stop collar (8), and slip the collar over the syringe barrel and onto the holder.
8. To set the desired delivery volume:
 - a. Pull out the plunger to the required volume. Bring the collar in contact with the stop rod (7) (Figure 4).
 - b. Tighten the stop collar screw (9).

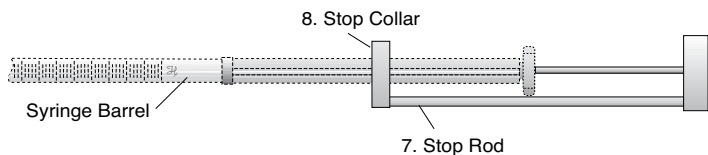
Figure 3: Final Assembly of the Chaney Adapter



To operate the Chaney Adapter (Figure 4):

1. Overfill the syringe.
2. Slightly rotate the plunger so the stop rod (7) collides with the stop collar (8).
3. Again rotate the plunger so the stop rod clears the stop collar.
4. Inject your sample.

Figure 4: Setting the Delivery Volume



Installing Chaney Adapter Part Number 32148

Install Reproducibility Adapter (p/n 32148) on any Hamilton Series 900 Microliter™ syringe. This model uses a collar and a stop rod assembly to control volume.

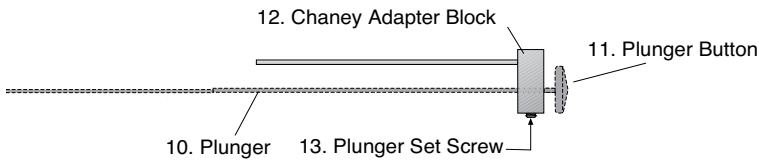
Follow these steps to install the Chaney Adapter (p/n 32148). Refer to Figures 5, 6 and 7 for part numbers (in parentheses) in the text.

Note: DO NOT handle the plunger shaft with your fingers. Oils and dirt from your skin may cause the plunger to freeze in the syringe. Wipe the plunger with a lint-free tissue.

Note: When installing Chaney Adapters on several Microliter™ syringes at one time, do not interchange plungers. Plungers are not interchangeable.

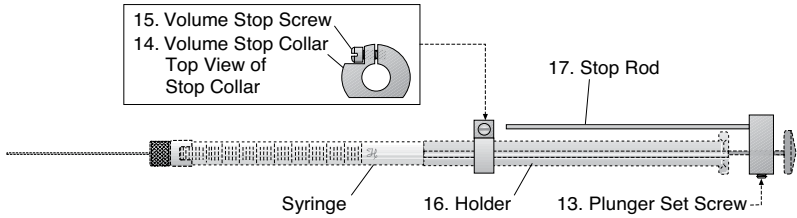
1. With the plunger removed, place the syringe on a clean, dust-free surface.
2. Insert the plunger (10) into the Chaney Adapter. With the plunger button (11) within 1/2" of the Chaney Adapter block (12) tighten the plunger set screw (13) (Figure 5).

Figure 5: Installing the Plunger in the Chaney Adapter



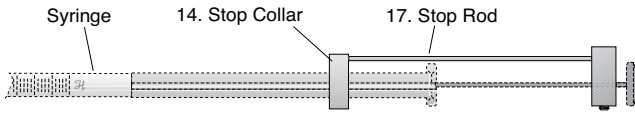
3. Loosen the stop collar set screw (15), and slip the stop collar (14) over the syringe barrel and onto the holder (16) (Figure 6).

Figure 6: Final Assembly of the Chaney Adapter



4. After wiping the plunger with a lint-free tissue, insert it into the syringe barrel.
5. To set the volume, pull out the plunger until you can read the required volume. Bring up the stop collar until it just touches the stop rod (17). You may need to rotate the syringe so the stop rod will contact the wide part of the stop collar (Figure 7).
6. Tighten the stop collar screw (15).

Figure 7: Setting the Delivery Volume



To operate the Chaney Adapter:

1. Overfill the syringe.
2. Rotate the plunger so the stop rod (17) collides with the stop collar (14).
3. Again rotate the plunger so the stop rod clears the stop collar.
4. Inject your sample.

Ordering Information

Description	Part Number
Chaney Adapter (for 800 Series Microliter™ Syringes or 1800 Series Gastight®)	32146
Chaney Adapter (for 900 Series Microliter™ Syringes)	32148
Stop Collar Set Screw	16204

Warranty Statement

Hamilton Company unconditionally guarantees its products to be free of defects in materials and workmanship. Any product which fails due to such a defect will be repaired or replaced at our discretion without cost, provided the device is returned on a Return Materials Authorization (RMA). It is the responsibility of the purchaser to determine the suitability of application and material compatibility of the products based on the published specifications of the products.

Return of Goods

Hamilton Company's return and repair policy is written to protect its employees from potentially hazardous materials (e.g. serum, radioactive materials, carcinogenic chemicals, etc.) or any substance that may cause them partial or permanent disability during the inspection or repair process. In returning a product, the customer acknowledges that the product is free from any hazardous materials. Furthermore, the customer assumes responsibility should the returned product be determined to be hazardous.

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Document No. 69193 Rev. D – 11/2014

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