Introduction
This document provides the instructions to replace the Disposable Solid Collection Filter of an Acadia Amalgam Separator using Disposable Solid Collection Filter Kit, Part Number A1290. The use period for a Collection Filter on either an existing Dry Vacuum System or Liquid Ring Pump System is 12 months or less depending on the capacity of the system. Included are procedures to disinfect, replace and package the filled Disposable Solid Collection Filter for recycling. This replacement should be performed only by authorized Air Techniques Dealer service personnel.

Replacement Kit Components- Supplied
As shown by Figure 1, each kit contains a Solid Collection Filter, A1280; Filter Cap, A1285 and Cap Plug, 40746. A Disinfection Certificate with a Ziploc bag used to enclose the Certificate are also supplied with the kit.

Kit PN A1290 Components Supplied
1. Solid Collection Filter, A1280
2. Filter Cap, A1285
3. Cap Plug, 40746
4. Ziploc Filter Disposal Bag, 9929-139
5. Disinfection Certificate, A1419

Dental Waste Handling
Solid Collection Filters collect waste materials from dental procedures. All maintenance personnel must be familiar with the procedures and practices for handling such dental waste and exercise every precaution to ensure personnel safety. Additionally, personnel must follow all local, state and/or federal laws and regulations for the proper disposal of dental waste containing mercury. Any operation, procedure or practice, which, if not strictly observed, may result in injury or long-term health hazards to personnel. Filled Collection Filters being sent for recycling should be handled, stored and disposed of according to regulations applying to dental waste containing mercury.

Note: Air Techniques offers a recycle kit for the safe disposal/recycle of full Solid Collection Filters. Please contact your authorized dealer for complete recycle information for the safe disposal of the full collection filter.

Proper Disposal of Amalgam Collector
After installation by an authorized Air Techniques Dealer, the Solid Collection Filter will trap mercury-containing materials. Mercury is a defined and regulated “hazardous substance” under many local, state, and/or federal regulations. Accordingly, at the end of the use period, arrangement must be made for proper disposal of the Solid Collection Filter and its contents in accordance with all local, state and/or federal laws and regulations. This includes disinfecting the Solid Collection Filter prior to disposal/recycling using products registered with the Environmental Protection Agency (EPA) as a disinfectant agent. Refer to the supplied Certificate of Disinfection for a partial list of sterilants registered by the EPA.

Unpacking Replacement Filter
Refer to Figure 2 and unpack the replacement Solid Collection Filter as follows.
1. Open shipping carton and remove the filter in protective bag.
2. Make sure that all components shown by Figure 1 were received.
   Note: Save the shipping carton and paper packing material for storage of the full collection filter.
3. Set aside the cap plug and filter cap, shipping carton, and all packaging necessary for storing the used (filled) filter.
4. Remove the new replacement filter from the protective bag and place it aside for later use in the collector filter replacement procedure.
CAUTION: DO NOT use Chlorine Bleach or solutions of sodium Hypochlorite to clean or disinfect the vacuum system or Disposable Solid Collection Filter. Sodium Hypochlorite (Bleach) will reduce effectiveness of the Filter.

WARNING: Make sure to wear skin and eye protection when performing the following replacement procedures.

Solid Collection Filter Replacement Procedure
This replacement procedure is divided into three parts. It provides instructions to disinfect the used filter for handling and shipment; to replace the filter to return the Acadia to service; and to package the filled Solid Collection Filter for recycling. Both the disinfection and replacement procedures are accomplished with the vacuum system running. All hand piece and suction devices must also be turned off during the entire filter change out procedure to maintain constant vacuum system pressure. Install a new Solid Collection Filter by performing the following procedures.

Disinfecting the Filter. The filled (used) Solid Collection Filter must be disinfected or sanitized for safe handling and shipment. The filter can be disinfected either installed on or removed from the Acadia separator unit. Refer to the Certificate of Disinfection supplied with the kit for a partial list of sterilants registered by the EPA. Disinfect the Solid Collection Filter by performing one of the following procedures as desired.

Important: Make sure the level of any internal water in the unit is well below the Input Port prior to turning off the vacuum system. Shutdown the vacuum system before disconnecting the input hose collection filter change out procedure.

1. Disinfect Installed Filter. Disinfect the Solid Collection Filter while the filter is installed on the Acadia separator unit by performing the following steps.

   Important: Reduce the internal water level by running the vacuum system without adding liquids until the water level decreases.

   a. Shutdown the vacuum system.
   
   Important: Make sure to hold the disconnected end of the hose above the Input Port.
   
   b. Disconnect the hose from the input elbow connector of the Acadia separator by removing the retaining clip and carefully twisting while pulling the hose from the connector.
   
   c. Rotate the elbow connector up 180° positioning the opening face up.
   
   d. Using an agent registered by the EPA, pour at least 1 liter of disinfectant into the elbow connector of the Acadia separator unit.
   
   e. Reposition the input elbow connector to the original position and reconnect the hose. Secure hose to the connector with the retaining clip.
   
   f. Restart the vacuum system and allow the disinfectant to completely fill the filter before replacing the filter per procedures provided on the next page.

   Figure 3. Disinfecting Installed Filter

2. Disinfect Removed Filter. Refer to Figure 4 and disinfect the Solid Collection Filter when the filter is removed from the Acadia separator unit by performing the following steps.

   a. Replace the used Solid Collection Filter by performing the Filter Replacement Procedure provided on the next page.
   
   b. Plug the center hole of the removed filter with the Cap Plug included in the kit.
   
   c. Drain the filter effluent by carefully pouring the filtered contents into a sink or floor drain.
   
   d. Remove the Cap Plug and disinfect the filter using a agent registered by the EPA. Using a funnel (not supplied), pour at least 1 liter of disinfectant into the center hole of the filter.
   
   e. Plug and cap the disinfected filter with the Cap Plug and Filter Cartridge Cap.
   
   f. Ship the used Solid Collection Filter by performing the Filter Pack and Ship Procedure provided on the next page.

   Important: Make sure to always keep removed Solid Collection Filter upright and in the supplied Ziploc Disposal Bag to prevent spills.
   
   Never drain filter with the center hole unplugged.

   Figure 4. Disinfecting Removed Filter
Filter Replacement Procedure. Replacement of the Solid Collection Filter consists of removing the used filter from the Acadia separator unit and installing in its place the replacement filter provided in the kit. Make sure to wear skin and eye protection when performing the following replacement procedures. Keep the filter bagged and upright to prevent spills. It is also recommended to wait until the liquid has drained down into the Solid Collection Filter to be removed before proceeding with replacement procedures. Replace the Solid Collection Filter used on the Acadia separator unit by performing the following filter removal and installation procedures.

Filter Removal. With the vacuum system running, remove the used (filled) Solid Collection Filter from the Acadia separator unit as follows:
1. Open the supplied Ziploc Disposal Bag and slip it up and over the collection filter to be removed.
   **WARNING:** Make sure to hold the filter and bag to avoid falling when the tabs are disengaged from the collar.
2. With the filter in the Ziploc bag, carefully remove the filter by turning the filter to the right and lowering away from the Acadia separator unit.
3. Set the removed filter aside and immediately install the replacement filter in accordance with the procedure below.

Filter Installation. Install the Solid Collection Filter onto the Acadia separator unit by performing the following steps.
1. Remove the filter from the protective bag and discard the bag.
2. Align the two tabs of the filter with the corresponding slots of the collar.
3. Lift the replacement filter into place and secure by turning to the left.
4. Make sure the replacement filter is properly installed.
5. Record the installation date on the label.
6. Proceed to step 7 if the filter was disinfected while installed on the Acadia separator unit. If necessary, disinfect the removed filter by performing the Disinfect Removed Filter procedure provided on the previous page.
7. Ship the used disinfected filter to the recycling service provider by performing the Filter Pack and Ship Procedure below.

**Important:** Make sure to disinfect the Disposable Solid Collection Filter before packaging for shipment. Shipping non-disinfected materials is a violation of many local, state and/or federal laws. See Disinfecting the Filter on the previous page. Refer to the supplied Certificate of Disinfection for a partial list of sterilants registered by the EPA.

**Note:** Never ship the filled Solids Collection Filter or the used/contaminated Acadia assembly back to Air Techniques.

Filter Pack and Ship Procedure. Refer to Figure 6 and pack the Solid Collection Filter for shipment by performing the following steps.
1. Close the Ziploc Disposal Bag containing the disinfected filter removed from the Acadia separator unit
2. Place the bagged disinfected Filter into the shipping carton using the saved paper packing material for protective cushioning.
3. Fill out and sign Certificate of Disinfection form and place the form into the supplied Ziploc bag.
4. Place the bagged Certificate of Disinfection inside the shipping carton.
5. Close and seal the shipping carton.
6. Make arrangements for proper disposal of the Solid Collection Filter and its contents in accordance with all local, state and/or federal laws and regulations.

**Important:** Keep the vacuum system running and maintain constant vacuum pressure by **not working** on patients or opening any hand piece or suction devices during the **entire** collection filter change out procedure.
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