

# Solmetex™ NXT Hg5™ Amalgam Separator System vs Capt-all® Handheld Amalgam Separator



Clinical Complexity

## Solmetex NXT Hg5™

- Solmetex NXT Hg5 does not require any physician/dental assistant involvement during procedure.
- Solmetex NXT Hg5 Amalgam Separator System is installed in a mechanical room, and patient is not exposed to amalgam separation technology.

## Capt-all®

- The Capt-all is inserted into the patient's mouth.
- The Cap-all tip is 1 inch longer than standard length straw. Effective length is 2½ inches shorter, so insertion depth into patient's mouth may be limited.
- The added overall length of the Capt-all tip places the "point of suction" at a greater distance from the hand-held device "on-off" valve. This could create awkwardness for the dental assistant.
- The section of the Capt-all tip that contains the filter elements is 1 inch in diameter which is more than 2 times the 7/16" (0.4375") diameter of a standard evacuation straw. This larger diameter may impede the vision of the dental assistant to precisely place the suction tip where needed in patient's mouth.

## Key Takeaway

**Capt-all requires physician/dental assistant involvement with amalgam separator in-procedure with patient involvement, resulting in unnecessary procedural complexity, added discomfort for the patient and the potential for clinical complications.**



Product Design

- Solmetex NXT Hg5 is installed in-line, downstream from the patient where the vacuum is most effective, thus optimizing the capture of dental waste.

- The Capt-all tip only fits and, is therefore only for use on (HVE) high volume evacuator hand-held dental suction device.
- The product does not address (SE) saliva evacuators which cannot be used without another amalgam separator installed downstream.

**Capt-all only fits an HVE handpiece and may not be as ergonomically user friendly as a standard HVE straw (i.e. longer length, wider diameter, etc.).**



Filter Technology



- Solmetex NXT Hg5 uses a proprietary restrictor design, **not a filter.**
- The restrictor slows the flow of water allowing amalgam and other solids to separate and settle in the collection container.
- Suction air-flow is independent from separation process.
- There is never any loss or reduction in chairside suction.

- Capt-all tip utilizes a filter element, opened on the inlet side to allow dental waste to enter, and sealed on the outlet side to contain waste solids while allowing liquid and air phases to pass downstream.
- Chairside suction is reduced or lost as solids accumulate in Capt-all filter.
- Accumulation of solids cannot be monitored visually. Only indication is a loss of suction.

- Filter design may cause material to adhere and bind, potentially, reducing flow, halting the collection of waste, causing clogging, and procedural complications or delays.
- "Flapper" style check-valve could become clogged with solids and allow "back-flow" into patients mouth if vacuum valve on hand-held device is closed prior to withdrawal from oral cavity.



# Solmetex™ NXT Hg5™ Amalgam Separator System vs Capt-all® Handheld Amalgam Separator

|  | Solmetex NXT Hg5™   | Capt-all®  | Key Takeaway  |
|--|---|--|---|
| <p><b>4</b></p> <p>EPA Regulation</p>  | <p>Solmetex NXT Hg5 is an ISO 11143:2008 certified amalgam separator per the EPA Dental Regulation.</p>   | <ul style="list-style-type: none"> <li>Capt-all is marketed as a “single -use” amalgam separator device. <b>ISO 11143 has no official designation for a “single-use” device.</b></li> <li>Capt-all is certified as a type 3 Filtration device that relies on operator to make a subjective assessment as to when device is full based on apparent loss of suction. <b>ISO 11143 requires type 3 devices to have a warning system when device has reached full solids holding capacity.</b></li> <li>Review of Capt-all ISO 11143 certification test report revealed several variations and omissions of testing protocol by the testing lab to accommodate for a “single-use” device.</li> <li>ISO 11143 certification was granted based on an amalgam removal efficiency of 95.4% which is marginal over the 95% minimum requirement and questionable due to the omissions in efficiency testing protocol.</li> </ul> | <p><b>EPA approval “beyond question” is critical when considering which Amalgam Separator System a practice should choose.</b></p>                          |
| <p><b>5</b></p> <p>Recycling</p>   | <ul style="list-style-type: none"> <li><b>Solmetex NXT Hg5</b> collection containers utilize a proprietary threaded cap or Snap-Cap™ to securely seal a full collection container during transport to recycle center.</li> <li>Due to leak-proof design, use of both the Snap-Cap and NXT Screw Cap are anecdotally preferred by major carriers/shippers responsible for handling recycled dental waste.</li> <li>The collection container is then placed in a plastic bag for double protection against leaking during shipping and handling.</li> </ul> | <p>Capt-all utilizes just a “lined recycle container” and “plug hole cap” to protect against leakage during shipping which <b>may come open during transit.</b></p>  | <p><b>Securely packaging the recycling container is important as the dentist is ultimately responsible for successfully recycling the dental waste.</b></p> |
| <p><b>6</b></p> <p>Compliance Documentation</p>  | <ul style="list-style-type: none"> <li>The online <b>Solmetex Compliance Center</b> enables customers to access all Certificates of Recycling &amp; Compliance 24/7/365.</li> <li>Online accessibility allows dental offices IMMEDIATE access to documents should an inspector’s office visit request proof of compliance <i>and</i> office doesn’t have them on file.</li> </ul>   | <ul style="list-style-type: none"> <li>Capt-all <b>DOES NOT</b> currently offer an online compliance center, certificates of compliance are available upon request.</li> <li>Capt-all documents may <b>NOT</b> be available during off-hours</li> <li>No way to verify Capt-all device was used 100% of the time for all procedures.</li> </ul>   | <p><b>Inability to provide sufficient compliance documentation may result in fines or office shut down.</b></p>   |