



Vial Rack System

User's Manual

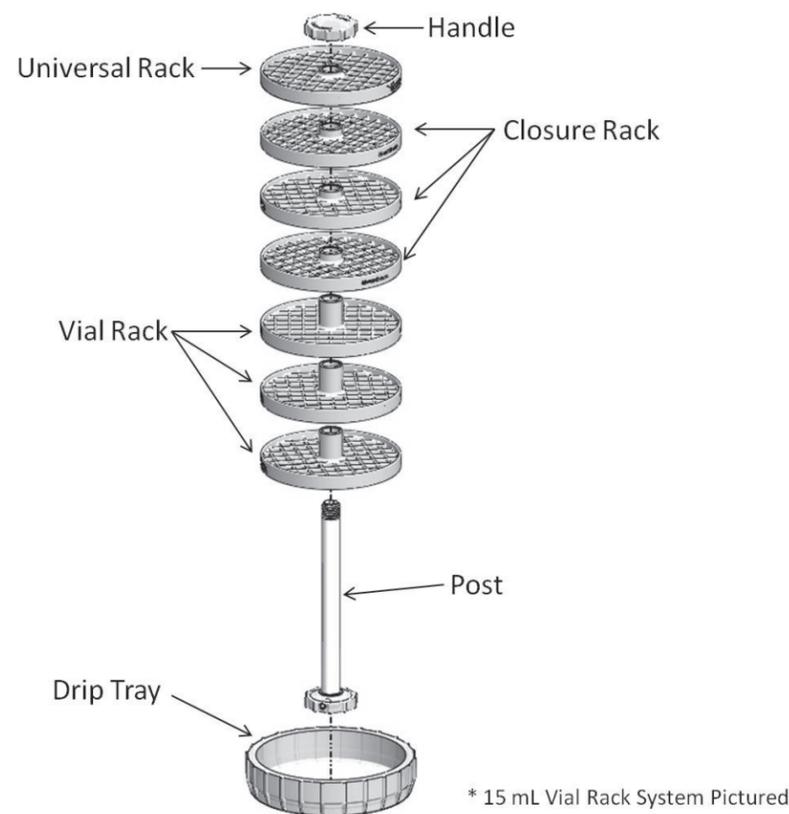
The Savillex vial rack system has been design specially for use with the Savillex vial cleaning system (#550-01), providing the safest and most efficient way to clean PFA vials, closures and other types of labware by acid soaking.

Liability Disclaimer

Every effort has been made in the preparation of this publication to provide the user with the most current, correct and clearly expressed information and instructions required for use and operation of the vial cleaning system. Savillex Corporation assumes no liability or responsibility for damages resulting from errors, omissions and accuracy of the information in this manual. The information included has been compiled from a variety of sources and is subject to change without notification. Savillex Corporation makes no warranties or representations regarding the quality, content, completeness, suitability, adequacy, sequence, accuracy, or timeliness of such information. If you discover any errors or omissions we encourage you to contact Savillex immediately.

Unpacking and Inspection

Open the shipping carton and remove the vial racks. Check all of the components against the packing list below and inspect for shipping damage such as cracks, scratches, dents, etc. Should any components be missing or damaged, contact your local distributor or Savillex.



System Components Included

Component	7 mL Vial Rack System	15 mL Vial Rack System	30 mL Vial Rack System	Universal Vial Rack System
1. Handle	1	1	1	1
2. Closure Racks	4	3	3	-
3. Post	1	1	1	-
4. Drip Tray	1	1	1	1
5. Vial Racks	3	3	2	-
6. Universal Rack	1	1	-	5
7. Retainer	-	-	-	1

Qualified Users

This product is intended as an experimental tool for research and development in the laboratory by qualified analytical chemists. Only those individuals that have adequate technical training, knowledge and demonstrated expertise should use it. Observe all safety procedures and best laboratory practices to assure safe operation. As in all laboratory operations, the user must assure that adequate safety procedures are established to protect all personnel from the potential hazards in the use of this product.

Accessories Sold Separately

Description	Part Number
Retainer Used when rack is not completely filled	550-740-100755
PFA Beaker Lid Required if rack system is used with a 4 L glass beaker	550-740-400910
Universal Rack Used for parts that do not have a specific rack	550-740-400896

Assembling the Vial Rack System

The vial rack system consists of a series of circular racks stacked onto a post with attached base. The racks hold Savillex vials and closures (parts) upright during soaking, which prevents air being trapped inside them. The racks feature integrated spacers and a small rim around the edge to hold the parts captive within the rack system. A range of different rack sizes are available with varying spacer heights, designed to hold the most commonly used Savillex parts. Each rack is marked on its outer edge to identify the rack type. This rack design offers several benefits.

1. Secures and stabilizes parts on the rack for loading and transfer
2. Maximizes the quantity of parts that can be loaded in the vial rack system
3. Improves cleaning efficiency
4. The small gap between the rim of the part and the rack directly above it prevents contamination from being trapped on the rim and allows the part to be cleaned more effectively
5. Allows the complete vial rack system to be rinsed under running water and even shaken to remove droplets, without parts falling out

Loading the Vial Rack System

Cleaning parts by soaking (where pre-configured rack systems are available for the parts to be cleaned)

1. Slide a rack appropriate to the Savillex part to be cleaned onto the post
2. Carefully load the rack with parts of the correct size for the rack, until the rack is full. Parts must be positioned on the rack with the opening facing up to avoid trapping air inside.
3. When the rack is full, slide the next rack to be loaded onto the post until it contacts the spacer of the rack below, and load it with parts of the correct size
4. Continue adding and loading racks until the threaded portion at the top of the post has been reached
5. The final rack is added and is used to secure the parts and racks below it
Note: The top rack will not have any parts on it and is used to secure the parts and racks below it
6. Secure all of the racks by threading the handle onto the post and tightening down onto the top rack.
DO NOT OVERTIGHTEN
7. The loaded and secured vial rack system is now ready to be placed into the Savillex vial cleaning system or into a 4 L glass beaker

Note: Different sized/shape parts cannot be mixed on the same rack. Use only the correct sized part for each rack that is used. Also, be sure to load each rack fully before adding another rack. Racks that are not full may tilt slightly, creating a gap between racks and possibly allowing parts to fall out.

Using the Vial Rack System with the Vial Cleaning System

DANGER!

Take appropriate precautions when handling chemicals. Always wear recommended safety apparel when handling or working with acids. In case of contact, flush with copious quantities of water. See reagent manufacturer's material safety data sheet (MSDS) for safe handling instructions

1. Follow the instructions in the vial cleaning system user's manual
2. Place the loaded vial rack system into the vial cleaning system
3. Carefully fill the vial cleaning system with dilute acid, detergent solution or DI water as required for soaking
4. Close and seal the vial cleaning system according the directions outlined in the vial cleaning system user's manual
5. The vial cleaning system and vial rack system are now ready for heated soaking

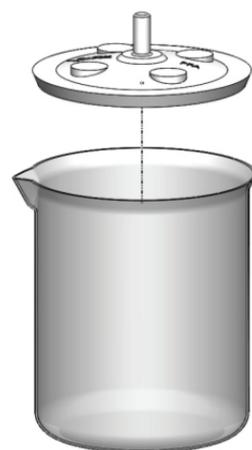
WARNING!

Please refer to the vial cleaning system user's manual for proper use and handling of the vial cleaning system during soaking.

Using the Vial Rack System a 4 L Glass Beaker

Although the vial rack system is designed to be used with the vial cleaning system, it can also be used with some 4 L glass beakers. For safest operation, SavilleX recommends using the vial rack system only with the vial cleaning system.

NOTE: A watch glass cannot be used to cover the 4 L glass beaker because it will come in contact with the top of the vial rack post/handle and not seat properly on the beaker rim, causing excessive evaporation. However, SavilleX offers a PFA beaker lid (#550-740-400910) specifically for use with the vial rack system and a 4 L glass beaker. The PFA beaker lid has a raised, inverted shape, which gives it enough clearance to seat on the beaker rim without contacting the post/handle of the vial rack system.



PFA Beaker Lid: #550-740-400910

WARNING!

Due to the wide variation in the internal diameter (ID) of commercially available 4 L glass beakers, the vial rack system may not fit into every brand of 4 L glass beaker. Glass beakers should have a minimum ID of 6.5" throughout the height of the beaker in order to be used safely with the vial rack.

DANGER!

Do not force the vial rack system into a glass beaker. If the beaker ID is large enough, the vial rack system should easily slide down inside of the beaker. Forcing it into a beaker could cause the beaker to crack or shatter.

DANGER!

Take appropriate precautions when handling chemicals. Always wear recommended safety apparel when handling or working with acids. In case of contact, flush with copious quantities of water. See reagent manufacturer's material safety data sheet (MSDS) for safe handling instructions.

1. Place the loaded vial rack system into the beaker
2. Carefully fill the beaker with dilute acid, detergent solution or DI water as required for soaking
3. Cover the beaker with the PFA beaker lid
4. The beaker and vial rack system are now ready for heated soaking

Removing the Vial Rack System

DANGER!

Take appropriate precautions during the filling with and dispensing of acid. Always wear recommended safety apparel when handling or working with acids. In case of contact, flush with copious quantities of water. See reagent manufacturer's material safety data sheet (MSDS) for safe handling instructions.

When the vial cleaning system is used

1. Allow the vial cleaning system and contents to cool to room temperature
2. Place the drip tray on a level surface
3. Follow the vial cleaning system user's manual for liquid emptying and lid removal
4. Carefully remove the vial rack system
5. Place the vial rack system on the drip tray. The drip tray captures liquid that drips off the vials and supports the vial rack system as the parts dry.
6. Rinse the vial rack system and contents thoroughly under running DI water, or transfer to a second vial cleaning system filled with DI water to remove residual acid droplets

When a 4 L glass beaker is used

1. Allow the beaker and contents to cool to room temperature
2. Place the drip tray on a level surface
3. Carefully empty the beaker. Use the PFA beaker lid to retain the vial rack system inside the beaker while emptying
4. Remove the PFA beaker lid and carefully remove the vial rack system
5. Place the vial rack system on the drip tray. The drip tray will capture liquid that drips off the vials and supports the vial rack system as the parts dry.
6. Rinse the vial rack system and contents thoroughly under running DI water, or transfer to a second beaker filled with DI water to remove residual acid droplets

Unloading the Vial Rack System

Carefully unscrew the handle by turning counterclockwise while holding the edge of the top rack. Remove the top rack and parts below it, and continue this process until the vial rack system is completely disassembled.

Universal Vial Rack

Although vial racks are available for the most commonly used Savillex PFA vials and closures, the vial rack system can be configured for use with other Savillex or non-Savillex parts using the universal vial rack system. The universal rack has no spacer. It slides down the post until it contacts the parts on the rack below it. Additional parts and universal racks are then added. If the universal rack used as the top does not align with the threaded portion of the post, the retainer (#550-740-100755) must be used to secure the top rack in place. The retainer can be locked at any position on the post, allowing the racks in a partly filled vial rack system to be locked and secured.

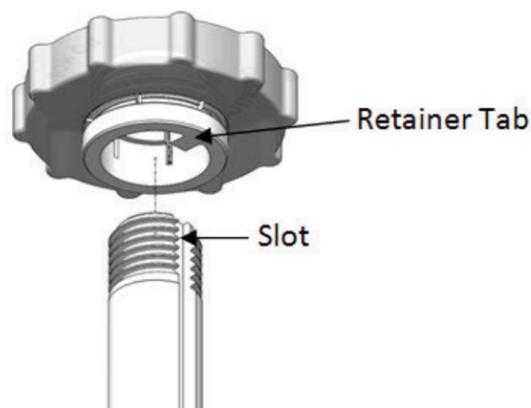
Loading the Universal Vial Rack System for Cleaning Parts by Soaking

1. Slide a universal rack (#550-740-400896) onto the post
2. Carefully load the rack with the parts to be cleaned. Parts should be positioned to minimize the formation of air bubbles and pockets to optimize the cleaning process. Remember that parts with different heights can not be loaded together on the same rack.
3. After the rack has been loaded, slide another universal rack to be loaded onto the post until it contacts and rests on the parts below it
4. Continue adding and loading racks until the threaded portion at the top of the post has been reached
5. Secure all of the racks by threading the handle onto the post. Turn the handle clockwise until the handle is secure against the top rack. **DO NOT OVERTIGHTEN**
6. The loaded and secured vial rack system is now ready to be placed into the vial cleaning system or into a 4 L glass beaker

Note: If the top rack does not align with the threaded portion of the post, the retainer (#550-740-100755) must be used to secure the top rack in place. The retainer can be locked at any position on the post, allowing a partly filled vial rack system to be locked and secured.

Using the Retainer

1. Load the universal racks and parts following the instructions above
2. Position the retainer so that the tab protruding into its central hole lines up with the slot in the post
3. Slide the retainer down the post until it contacts the top rack
Note: the top rack will not have any parts on it and is used to secure the parts and racks below it
4. Turn the top part of the retainer washer clockwise to lock the retainer in position, snug against the top rack. **DO NOT OVERTIGHTEN**
5. Thread the handle on the post and turn clockwise until the handle is secured on the post.
DO NOT OVERTIGHTEN
6. The loaded vial rack system is now ready to be placed into the vial cleaning system or into a 4 L glass beaker



Service and Maintenance

There are no serviceable parts for the vial rack.

Warranty and Liability

LIMITED WARRANTY

Savillex Corporation (Savillex) warrants its products against defects in materials and workmanship for 90 days from the time of shipment. Savillex makes no warranty, express or implied, with respect to any components, products, information or services provided by any third party. Upon Savillex's confirmation of defects, Buyer's EXCLUSIVE REMEDY shall be for Savillex, at Savillex's option and subject to return of the defective product, to repair or replace the defective product or to refund the price paid by Buyer for such product. Warranty coverage excludes product damage which Savillex determines is due to accident, misuse or lack of reasonable care. Buyer's warranty rights are subject to Savillex being promptly notified in writing upon discovery of a warranty claim with a detailed explanation of the defect, and the claimed defective product being received by Savillex, freight prepaid, within 30 days after expiration of the warranty period. EXCEPT AS STATED IN THIS DOCUMENT, NO OTHER WARRANTY, EXPRESS OR IMPLIED, IS GIVEN OR AUTHORIZED BY SAVILLEX. IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE EXPRESSLY DISCLAIMED.

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