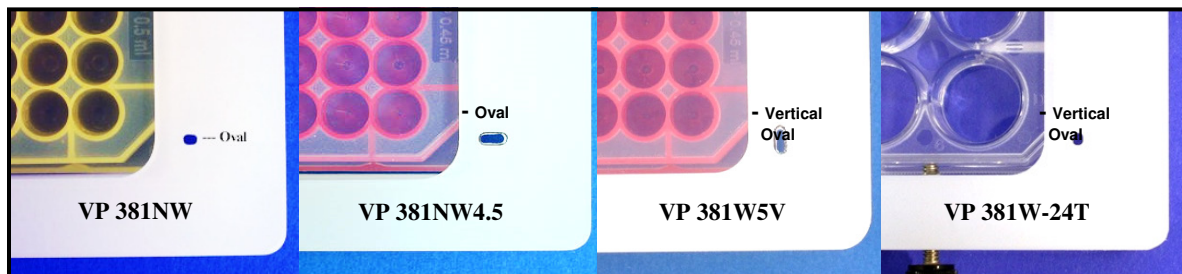
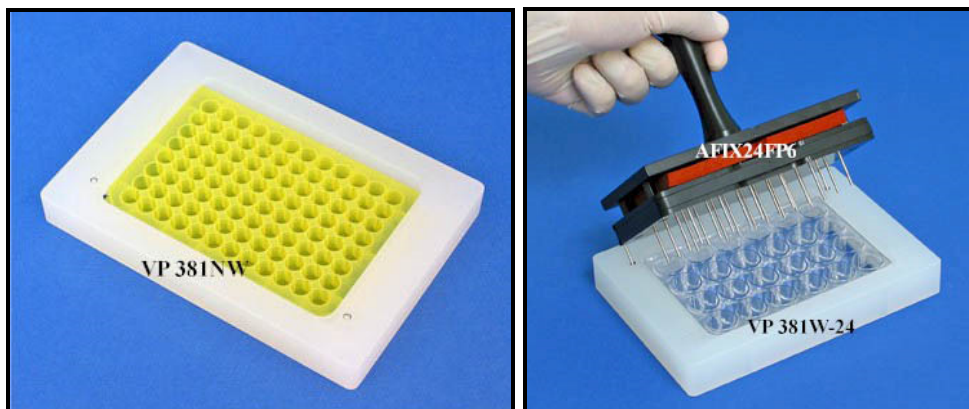


**Care and Use of Wounding Pin Replicators  
Used with Wounding Library Copiers VP 381NW, VP 381NW4.5,  
VP 381NW5, VP 381NW5-V, VP 381W-24 or VP 381W-24T**



Library Copiers with various sized alignment slots for wounding tissue culture monolayers in 24, 96 or 384 well microplates using Floating Pin Wounding Replicators:

**VP 381NW-** 1.9 mm wide and 4.5 mm long slots for 96 or 384 well microplates

**VP 381W-24-** 1.9 mm wide and 4.5 mm long slots Greiner 24 well microplates

**VP 381W-24T-** 1.9 mm wide and 2.5 mm long slots BD Falcon 24 well microplates

**VP 381NW5-** 1.7 mm wide and 5.0 mm long slots for 96 well microplates

**VP 381NW5-V-** 1.7 mm wide and 5.0 mm long slots for 96 well microplates

## Care of Wounding Replicator:

1. Before each day's use we recommend that the pins be cleaned with VP 110 Pin Cleaning Solution, which is designed to clean stainless steel and condition the pins. For more information on pin cleaning please see Technotes #135 or #66B.
2. If the pins should become coated with organic material they can be mechanically cleaned with the VP 426 Pin Scrub Pad and Ivory dish detergent or other mild detergent.
3. The pins can be cleaned between sample microplates by dipping briefly in a 10% bleach solution, followed by a series of two sterile dH<sub>2</sub>O washes (set up in tip lid boxes or VP 420 glass dishes), then a 99% isopropanol wash. Between wash steps, remove the liquid from the pins by blotting on a Lint-Free Blotting Paper (VP 522). This blotting step is very important to reduce carry over. It is important that the pins be dry before going into the next source plate. For more information on pin cleaning between microplates please see Technote #66B

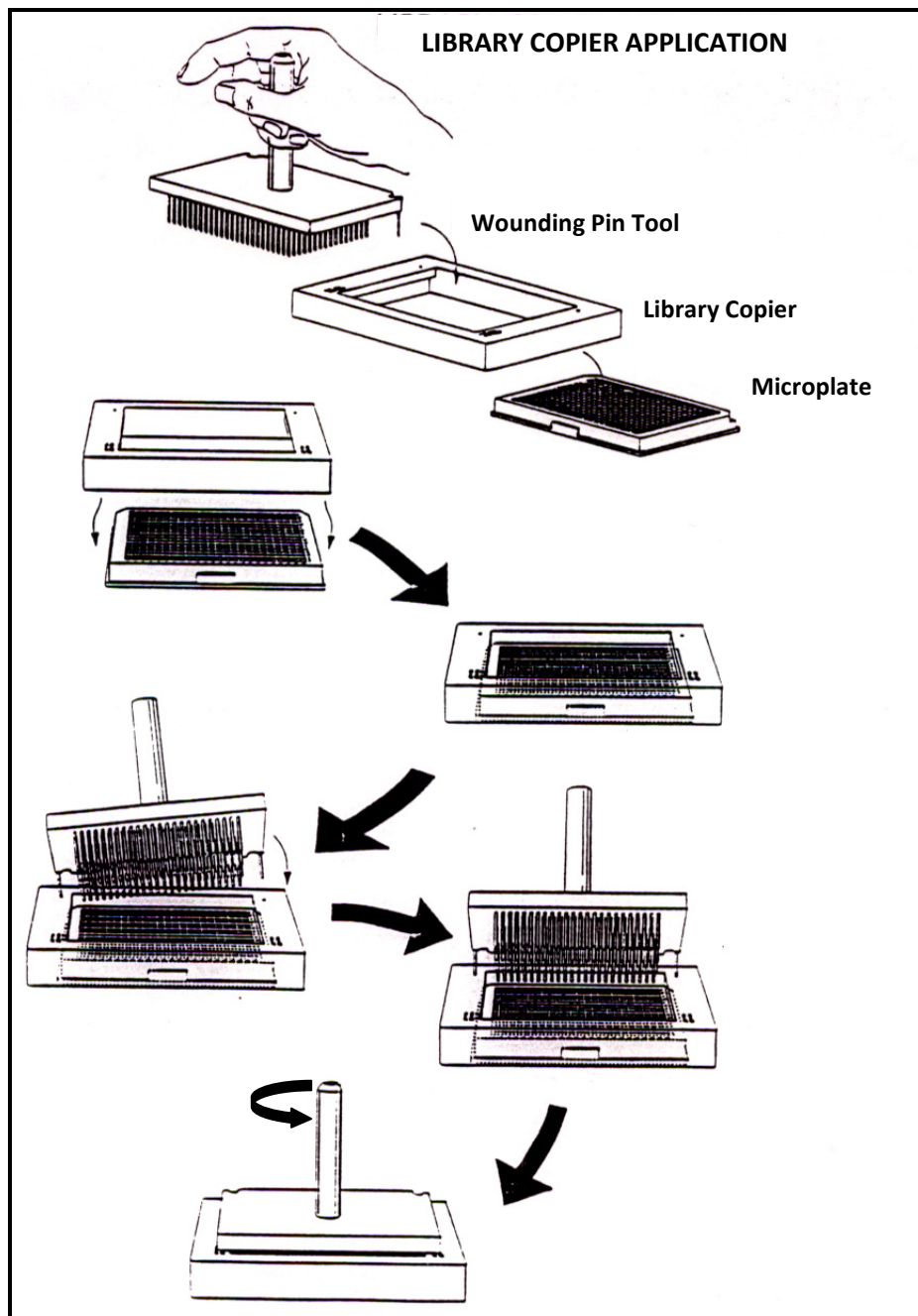
## Disinfecting Wounding Replicator:

1. The Wounding Replicator can be sterilized by hot air oven, autoclaving, treating in 10% bleach or isopropyl alcohol.
2. The pins can be cleaned between sample microplates by dipping briefly in a 10% bleach solution, followed by a series of two sterile dH<sub>2</sub>O washes (set up in tip lid boxes or VP 420 glass dishes), then a 99% isopropanol wash. Between wash steps, remove the liquid from the pins by blotting on a Lint-Free Blotting Paper VP 522. This blotting step is very important to reduce carry over. It is important that the pins be dry before going into the next source microplate. For more information on pin cleaning between microplates please see Technote #66B
3. The pins can be air-dried or dried using a portable hair drier.
4. Hydrogen peroxide may also be used to disinfect the pins as long as it is rinsed off with distilled water. The % of hydrogen peroxide necessary will vary between applications.

## Use of Wounding Library Copier with Wounding Replicator:

1. Place the appropriate Library Copier over a 96, 384 or 24 well microplate containing the cell monolayer to be "wounded". Slide the Library Copier to make sure the microplate is seated within the device and therefore registered.
2. Hold sterile Wounding Replicator at a 45° angle to the wounding Library Copier and 20° angle to the left alignment hole. Then slowly decrease the 20° angle and place the right guide pin into the right alignment hole. Rotate the Wounding Replicator forward until guide pins line up vertically then slide them down into the alignment holes to allow the Wounding Replicator pins to drop into the wells (see figure on next page).
3. Hold the Library Copier in one hand and move Wounding Replicator in a "race track" movement using the oval shaped alignment hole.
4. To wound another microplate disinfect the pins as described above.

Overview of using a Library Copier™ with a Wounding Pin Tool.



## Warnings:

- Do not soak the pins in bleach solutions for a long period of time as this can corrode the stainless steel pins.
- Do not soak the pins in deionized water as this can corrode the stainless steel pins.
- **The VP 110 Pin Cleaning Solution contains a dilute acid solution which can strip the protective black anodized surface off the aluminum replicator bases or float plates. If you accidentally get the VP 110 Pin Cleaning Solution on an anodized surface, quickly rinse it off with water. This is not an issue with bases or aluminum bases or plates that are coated with NiLube, a gray-colored non-stick protective coating.**

## Warranty:

V&P Scientific, Inc. warrants this product to be free from defects in material and workmanship when used under normal laboratory conditions for one year. This warranty begins from the date of delivery by V&P Scientific.

In the event this product fails under normal laboratory conditions within the specified period of time because of a defect in material or workmanship, V&P Scientific will, at its option, repair or replace the product. Damage to the product caused by user negligence is not covered.

Please keep the special shipping carton in case the unit needs to be shipped back to V&P Scientific. Please contact V&P Scientific at the address below for return authorization and shipping instructions.

This warranty is made in lieu of other warranties expressed or implied including the warranties of merchantability and fitness for a particular purpose. V&P Scientific shall not be liable for loss or damages arising from the use of these products nor for consequential damages of any kind.

If technical assistance is required, contact:

V&P Scientific, Inc.  
9823 Pacific Heights Blvd., Suite T  
San Diego, CA 92121  
Ph: 858-455-0643  
Fax: 858- 455-0703  
[sales@vp-scientific.com](mailto:sales@vp-scientific.com)