VP 770

MAGNETIC LOADER/UNLOADER SYSTEM

for Retrieving Stir Elements from Microplate Wells

Warnings/Precautions

WARNING

These items contain extremely strong magnets that produce magnet fields at great distances of from the base of the unit.

- Persons with Pacemakers should maintain a 24" distance from these plates.
- Remove all items magnetically sensitive items away from the immediate area. This may include:

  - ✓ Large, Unbound, Metal Items & Tools
  - ✓ Electronic Devices such as:

    - ❑ Watches
    - ❑ Cell Phones
    - ❑ Credit Cards

- Do not use next to large, ferro-magnetic objects or magnetic stirrers.

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.

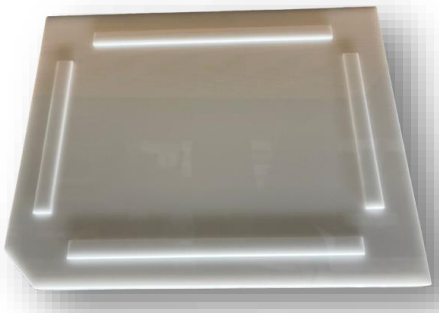
This warranty is made in lieu of other warranties expressed or implied including the warranties of merchantability and fitness for a particular purpose. V&P Scientific shall not be liable for loss or damages arising from the use of these products nor for consequential damages of any kind.

Please keep the special shipping carton in case the unit needs to be shipped back to V&P Scientific. Contact V&P Scientific for return authorization and shipping instructions or for any other assistance at 858-455-0643 or sales@vp-sci.com.

Components

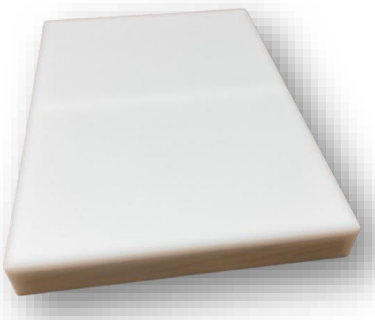
1. VP 770-1 *Collection Tray*

Top



Bottom

2. VP 770-2 *Unloading Magnet*



3. VP 770-3 *Loading Magnet*

Additional Required Products (purchase separately)

1. VP 408M
Magnetic Pin
Replicator

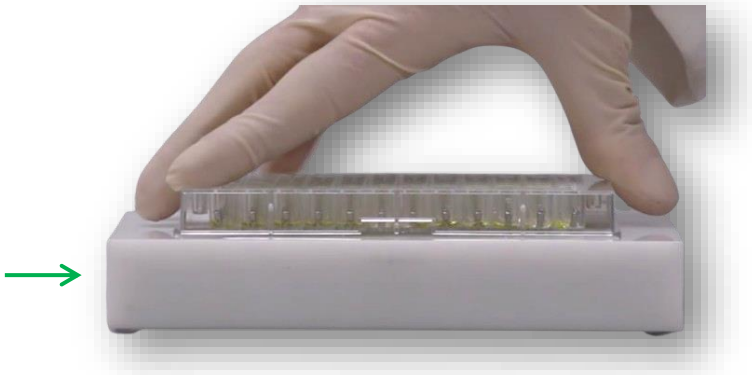
2. VP 781
Demagnetizer

3. VP 421
Plastic Tray

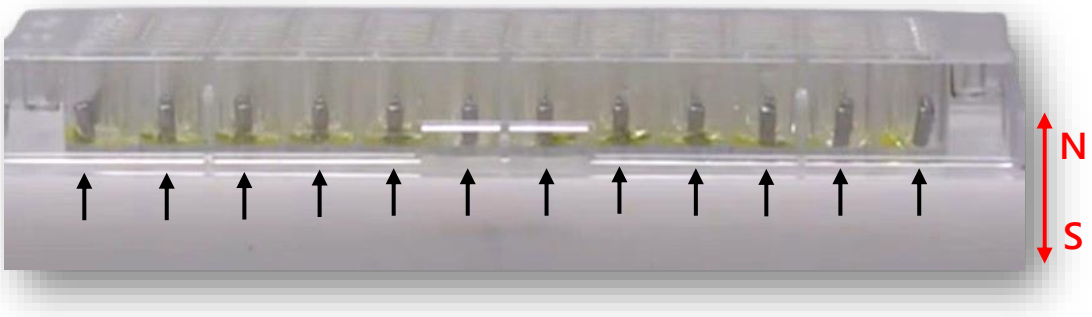
Use - Removing Stir Elements From a Microplate

1. Place the *Collection Tray* (VP 770-1) on top of the *Unloading Magnet* (VP 770-2) such that the magnet fits snuggly within the projections on the underside of the tray.

2. Place microplate with Stir Elements on top of the *Loading Magnet* (VP 770-3).



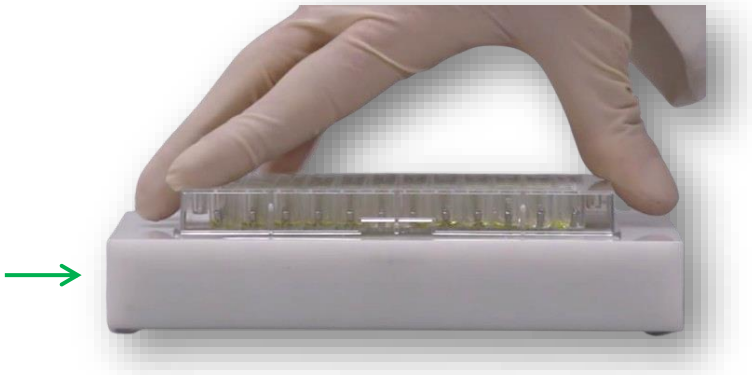
3. Once the microplate is on the *Loading Magnet* the Stir Elements will align themselves vertically with the direction of the poles of the magnet.



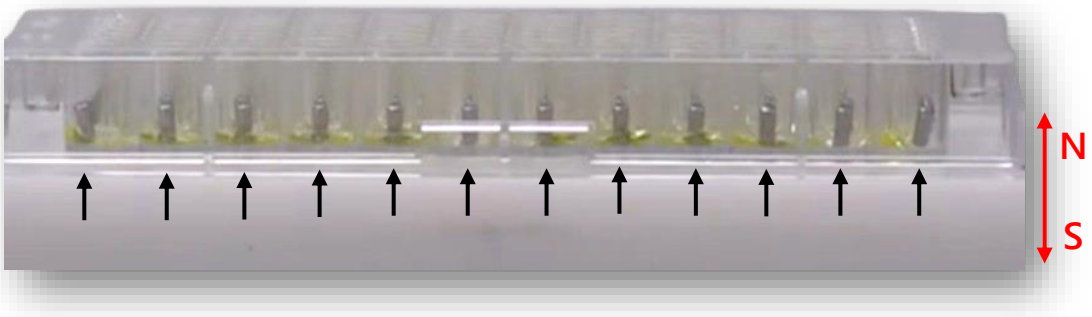
Use - Removing Stir Elements From a Microplate

1. Place the *Collection Tray* (VP 770-1) on top of the *Unloading Magnet* (VP 770-2) such that the magnet fits snuggly within the projections on the underside of the tray.

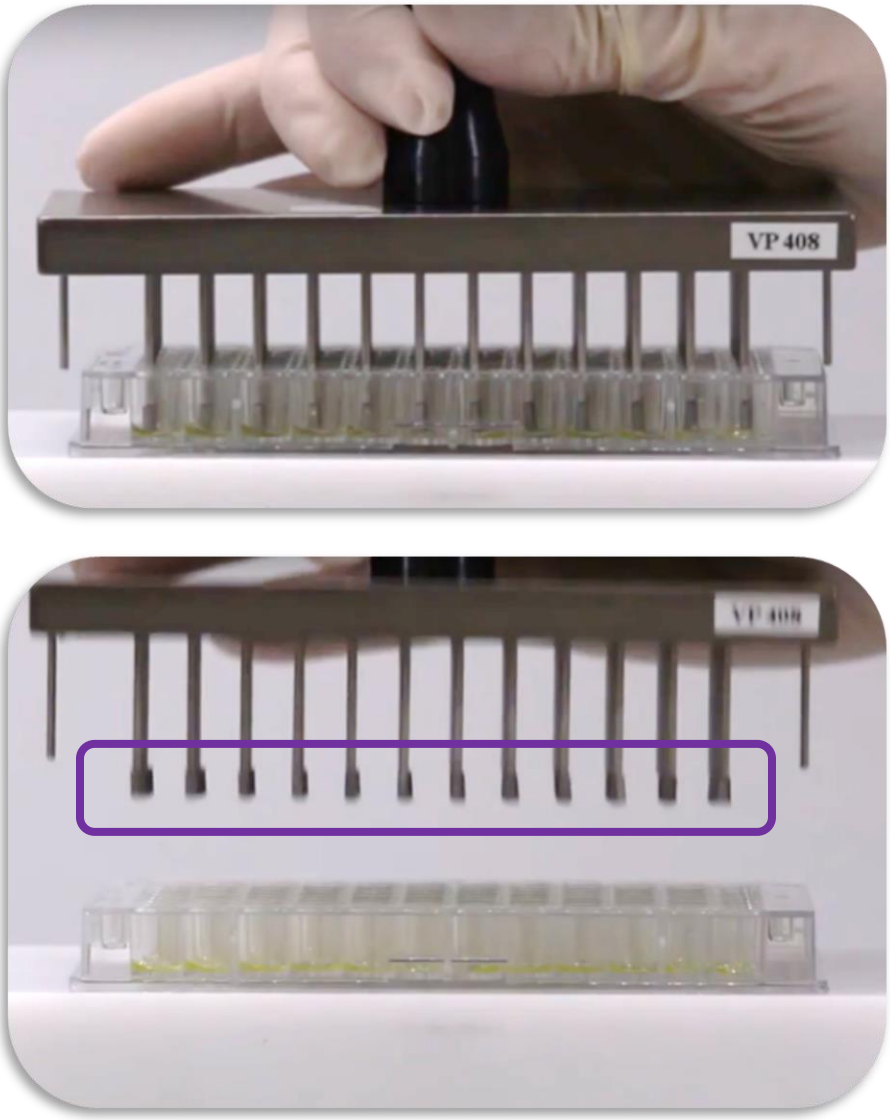
2. Place microplate with Stir Elements on top of the *Loading Magnet* (VP 770-3).



3. Once the microplate is on the *Loading Magnet* the Stir Elements will align themselves vertically with the direction of the poles of the magnet.



4. Align the *Magnetic Pin Replicator* pins (VP 408M) with the wells of the microplate and lower the *Replicator* into them, allowing the Stir Elements to be magnetically attracted to the pins. Slowly lift the pin tool, with the Stir Elements, from the microplate. The Stir Elements are now "loaded" onto the *Replicator.*

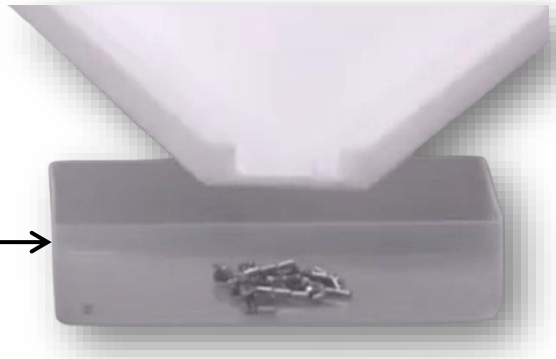


Note: Depending on the type of Stir Element and the height of the microplate, a different *Magnetic Pin Replicator* may be needed. For example, PTFE-encapsulated Stir Stix (VP 732-2) in a deep well microplate will need a deep well Magnetic Pin Replicator such as VP 407AM. Contact V&P Scientific for more information.

5. Bring the *Magnetic Pin Replicator* with the Stir Elements over to the *Collection Tray/Unloading Magnet* to "unload" the Stir Elements. Gently sweep back and forth over the surface of the *Collection Tray/Unloading Magnet.* The Stir Elements are removed from the pins because the *Unloading Magnet* is half north pole up and half south pole up and the Stir Elements are "tumbled" as they are moved across the two poles. This action interferes with the weak magnetic interaction between pins and Stir Elements which drop to the tray.

6. Remove the *Collection Tray* from the *Unloading Magnet* by lifting the tray up.

7. Using the open corner of the tray, pour the Stir Elements into a suitable container such as the **Plastic Tray** (**VP 421**) shown below.



Note: The Stir Elements will be clumped together due to exposure to the strong magnetic field of tumble stirring. This makes it very difficult for cleaning and re-use. Perform step 8 to remove the magnetism from the Stir Elements.

8. To demagnetize the Stir Elements, turn on the *Demagnetizer* (**VP 781**) and then slowly slide the container with the elements on top, back and forth, one or two times. Remove the tray of demagnetized Stir Elements before turning off the *Demagnetizer.*