

OPERATION MANUAL FOR
VP 416-ALE-96 Reaction Block

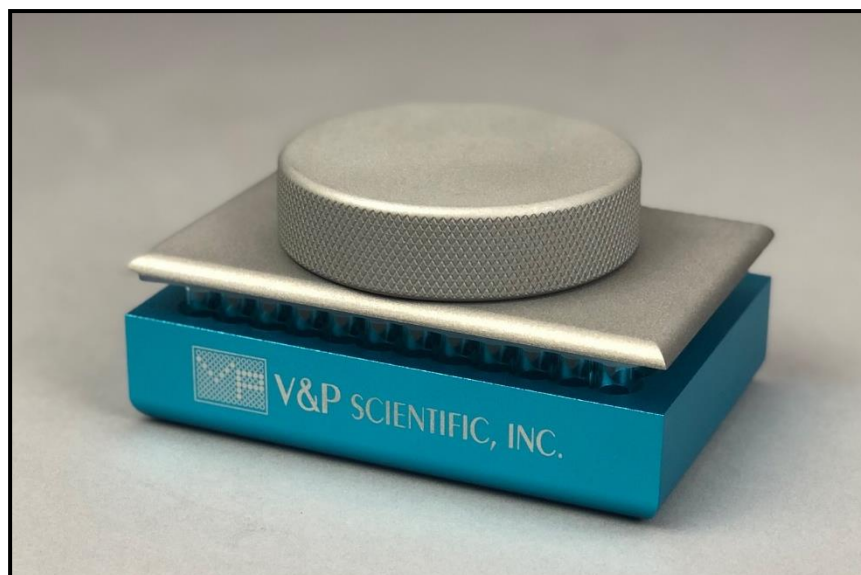


Figure 1. Assembled VP 416-ALE-96 Reaction Block with VP 580 glass shell vials, VP 416-96-FILM and VP 416-96-MAT sold separately

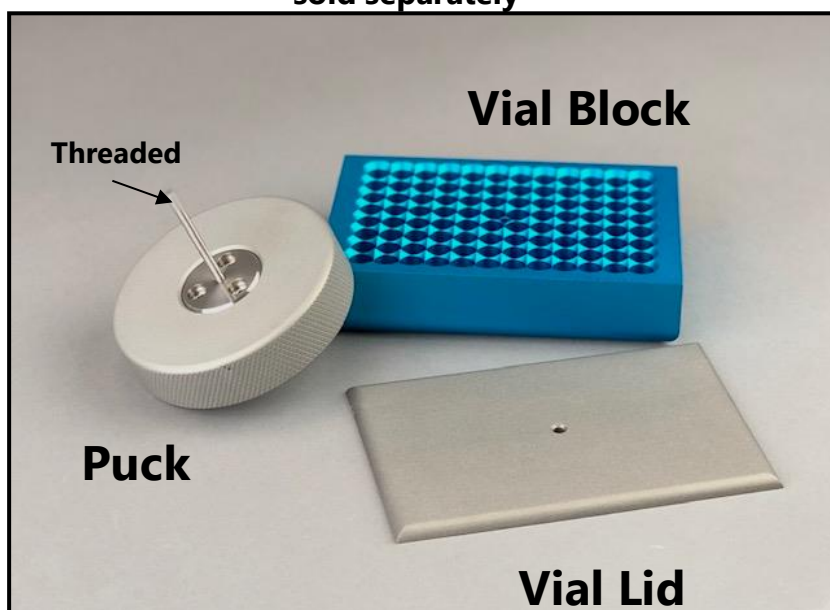


Figure 2. Disassembled view of (1) tightening puck with threaded rod, (2) vial block and (3) vial lid

SET-UP

Sealing vials with VP 416-96-FILM and VP 416-96-Mat

1. Once all glass shell vials are charged with reactants, solvent and stir elements, place one **VP 416-96-FILM** (clear PFA sheet) over the vials (see **Figure 3**) taking care to **align the center hole of the film and the center hole of the reaction block**.
2. Place a single **VP 416-96-MAT** over the PFA film. A good technique is to use fingertips of one hand to hold the PFA film in place while your other hand places the white mat directly over the film ensuring that both center holes align as shown in **Figure 5**.

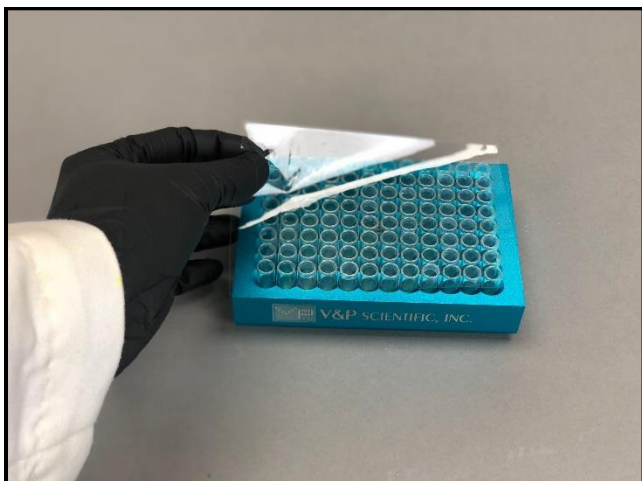


Figure 3. Vial Block, vials and PFA film

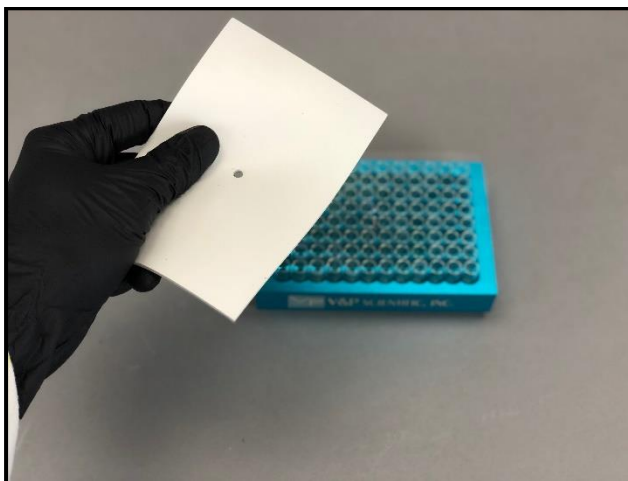


Figure 4. Putting mat over PFA film

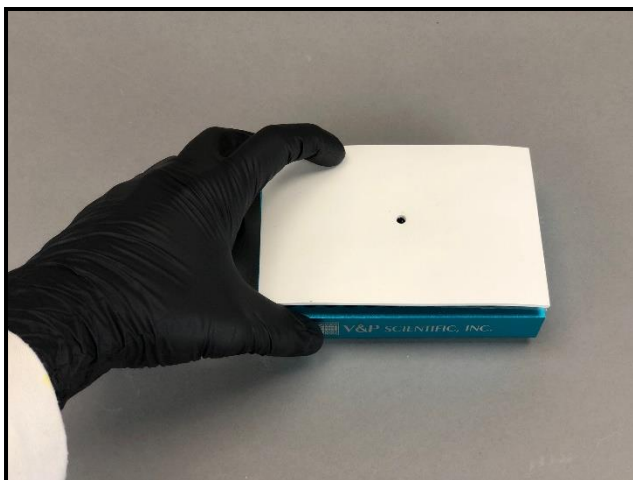


Figure 5. Lining up mat and PFA film

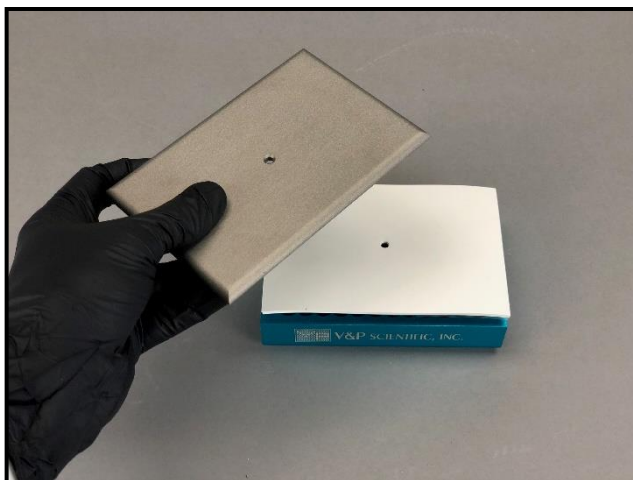


Figure 6. Placing vial lid over assembly



Figure 7. Aligning vial lid over assembly

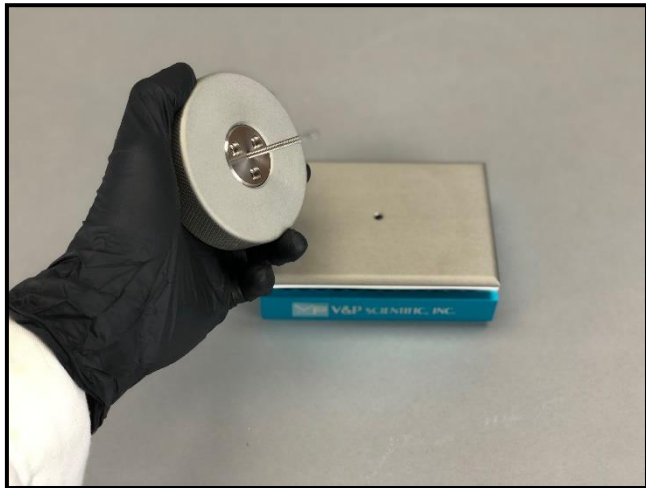


Figure 8. Pass threaded rod through center holes

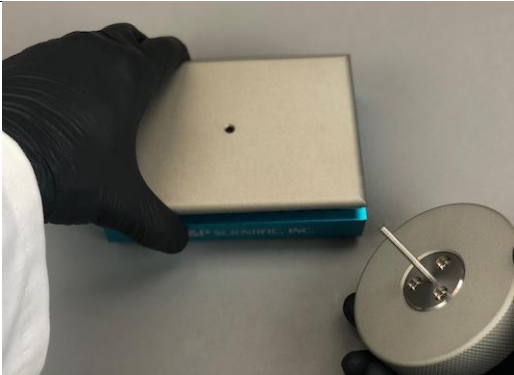


3. The aluminum vial lid can then be placed over **VP 416-96-MAT** taking care to **align center hole with the others** (see **Figure 7**).
4. Threaded rod of tightening puck can then be passed through center holes and screwed down. **Please review "Operation" section for important tips for tightening the puck.**

OPERATION

WARNING!!!! VP 416-ALE-96 Reaction Blocks can be very hot when operated in conjunction with a Heating Block, so exercise caution!

REACTION BLOCK OPERATION USING V&P HEATING BLOCK AND TUMBLE STIRRER

1. With PFA film, white mat and vial lid in place, assembly of the reaction block can take place as follows:

A		<p>Place the vial lid on top of the vials, film and mat. Align the outer edges with the edges of the vial block (similar to stacking a deck of playing cards).</p>
B		<p>While keeping the vial lid in place with one hand, pass the threaded rod of the puck down through the opening in the center of the vial lid. Slowly lower the puck down until you feel the threads begin at the base of the vial block.</p>
C		<p>Once the puck is properly seated on the threads inside the vial block, twist or spin the Puck clockwise until you feel the underside of the puck engage with the surface of the vial lid. Once you feel this, turn the puck ¼ turn past this point.</p> <p>DO NOT OVERTIGHTEN THIS STEP AS THE THREADED ROD MAY BREAK</p> <p>See Figure 9 & 10 <u>below</u> for additional details.</p>

2. **Tightening the Puck no more than ¼ turn past hand tight is critical. Overtightening May Cause Threaded Rod to Break.**

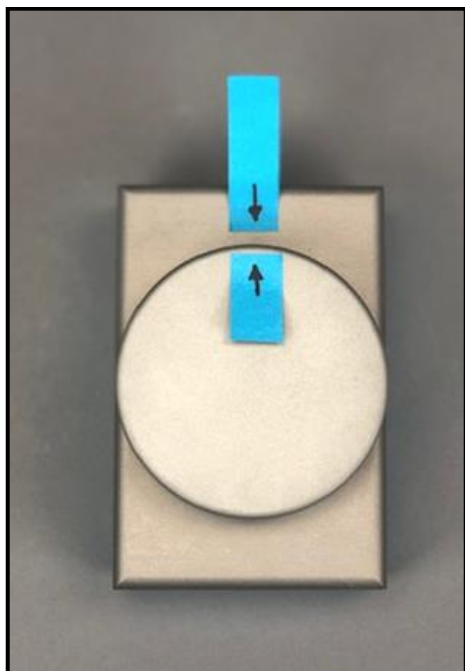


Figure 9. Starting position of puck engaged with lid (blue tabs added for clarity)

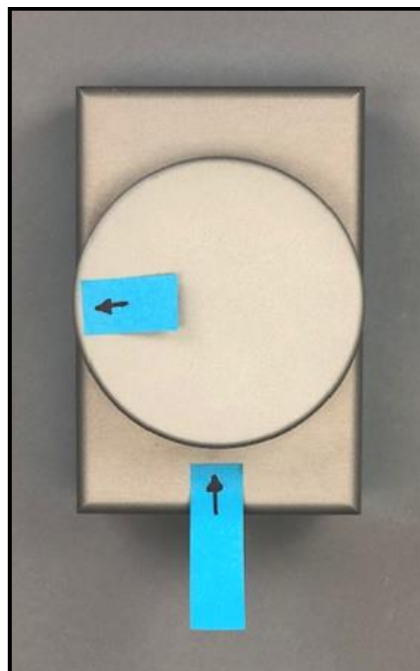


Figure 10. Final position of puck once lid is appropriately tightened (blue tabs added for clarity)

3. Once Reaction Block is properly assembled it is ready for use with heating or at ambient temperature on a Tumble Stirring System. If heating will be performed using a VP 741 series Heating Block (**Figure 11 & 12**) you may use the Puck to lift the Reaction Block in and out of the deep well chamber.

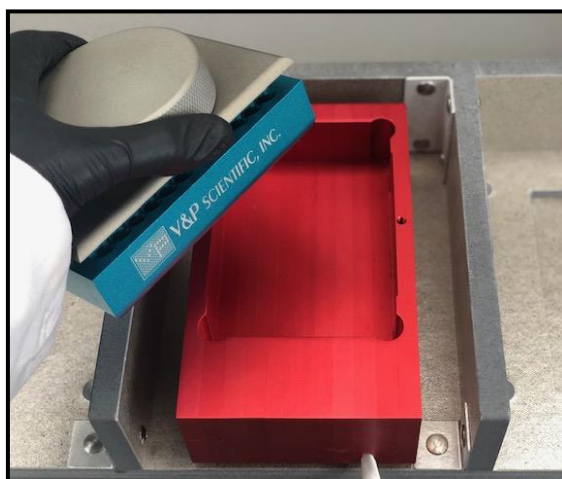


Figure 11. Assembled reaction block

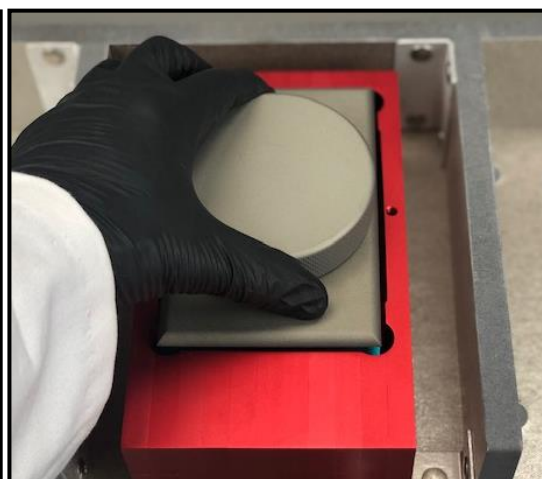



Figure 12. Reaction block properly seated and VP 741 series heating block

4. **IMPORTANT:** In general, avoid heating solvents above their boiling points to avoid solvent loss.

SET-UP WITH OPTIONAL VP 580-96-711D-1 (96 shell vials preloaded with VP 711D-1 stir elements)

If using with VP 580-96-711D-1, please follow these instructions:

A		<p>Open the VP 580-96-711D-1 box with the bottoms of the 96 vials facing up</p>
B		<p>Place the inverted, empty vial block down over each of the vials.</p>
C		<p>With 2 hands, lift the Vial Block and box of VP 580-96-711D-1 together and invert the two. Lift off the box to reveal the mat cap and vials properly seated in the vial block. Remove mat cap and continue.</p>

Product Maintenance

GENERAL PRODUCT CARE

After every use, wipe down exterior of Block with wet paper towel or soapy water followed by a quick rinse with Acetone and allowed to dry

If technical assistance is required, contact:

V&P Scientific, Inc.

Ph: 858-455-0643

sales@vp-sci.com

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 on the date of delivery from 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 above address for return authorization and shipping instructions.

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