

OPERATION MANUAL FOR VP 416-ALE-48-HP Pressure Reaction Block



Figure 1. Assembled VP 416-ALE-48-HP Pressure Reaction Block

SET-UP

Parts of the Pressure Reaction Block System

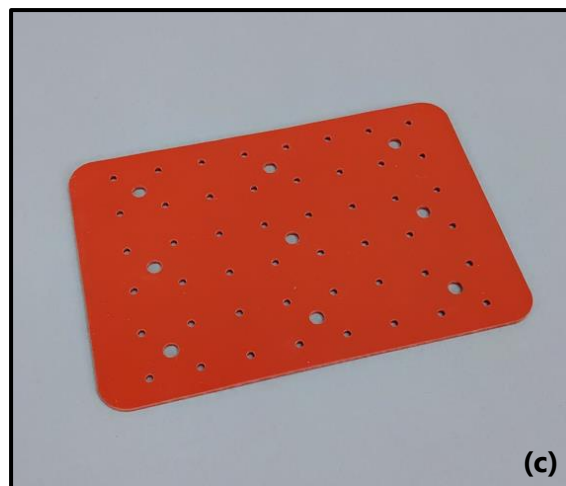
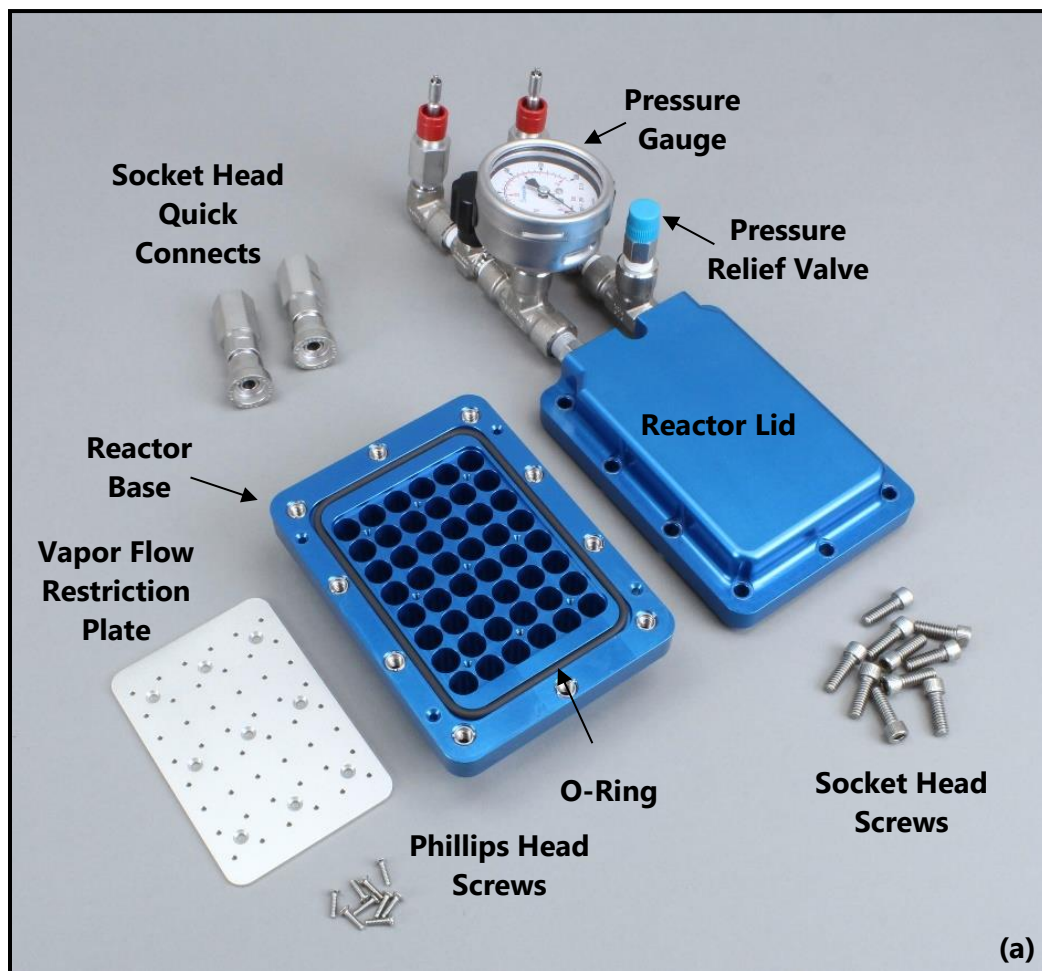


Figure 2. (a) Disassembled view of components shipped with VP 416-ALE-48-HP. (b) VP 416-48-FILM-HP, sold separately. (c) VP 416-48-MAT-HP, sold separately

Installing and Sealing Vials within Pressure Reaction Block

1. Once black Viton O-ring is in place and all glass vials are placed in the reactor base, (see **Figure 3**) reactants, solvent and stir elements can then be added to each vial.
2. Place a single PFA film **VP 416-48-FILM-HP** over the vials followed by a rubber mat **VP 416-48-MAT-HP** and the vapor flow restriction plate as seen in **Figure 4**.

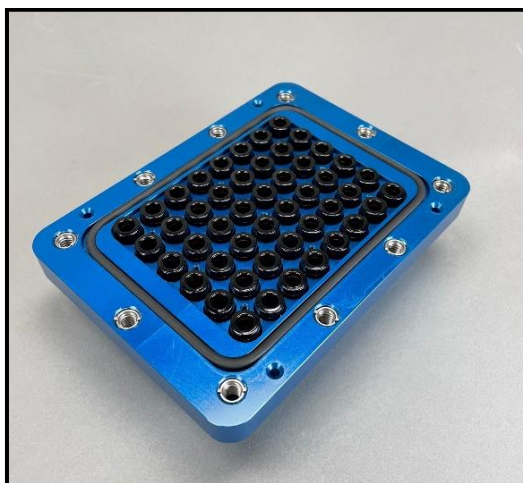


Figure 3. Reactor base with vials

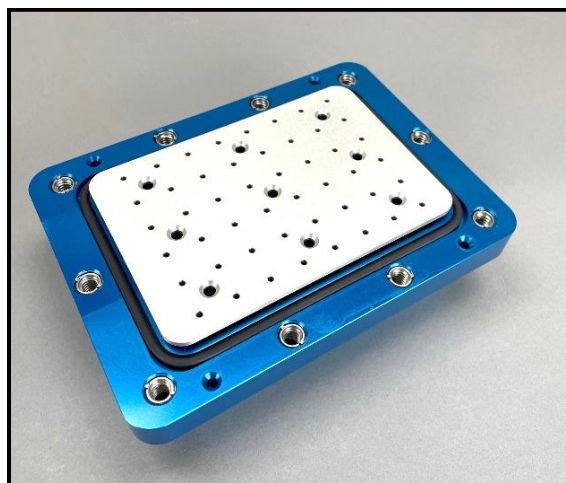


Figure 4. Vapor Flow Restriction Plate

3. Align all holes and screw down to secure. Following the pattern shown in **Figure 5**, tighten each screw so that they are flush with vapor flow restriction plate (but not overly tight).

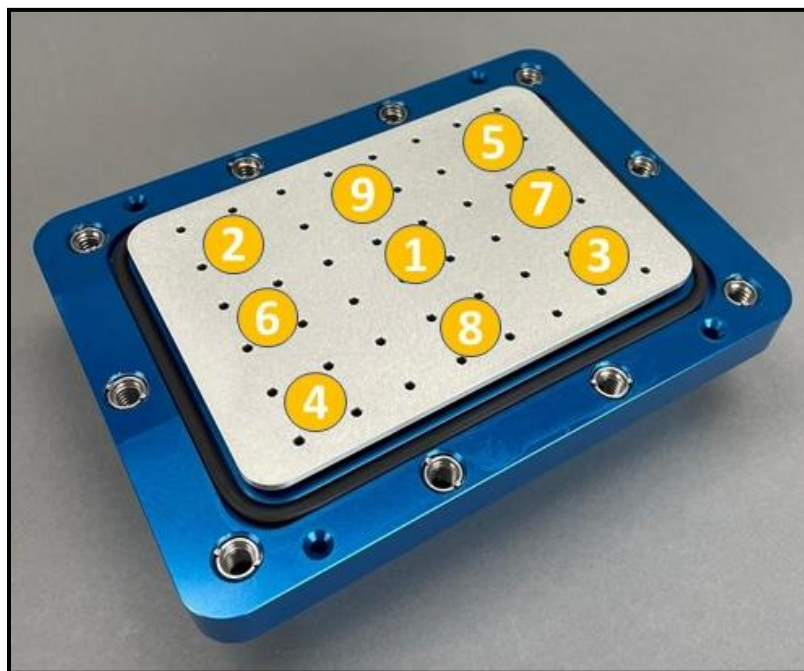


Figure 5. Suggested screw tightening order for Vapor Flow Restriction Plate

Assembling Lid and Introducing Pressurized Gas

1. Once reactor base has been fully assembled it is ready to be secured to the reactor lid (see **Figure 6**)
2. Using the provided socket head screws, begin screwing down lid until finger tight.

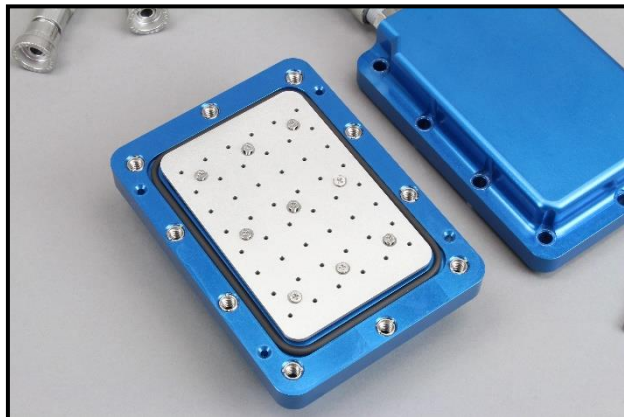


Figure 6. Ready for Reactor Lid assembly.



Figure 7. Pre-assembly, socket head screws shown

3. Using a Hex wrench, tighten the socket head screws to secure the reactor lid to the reactor base. The order of tightening pattern shown in **Figure 8** is recommended. 40 inch-lbs of force are recommended.

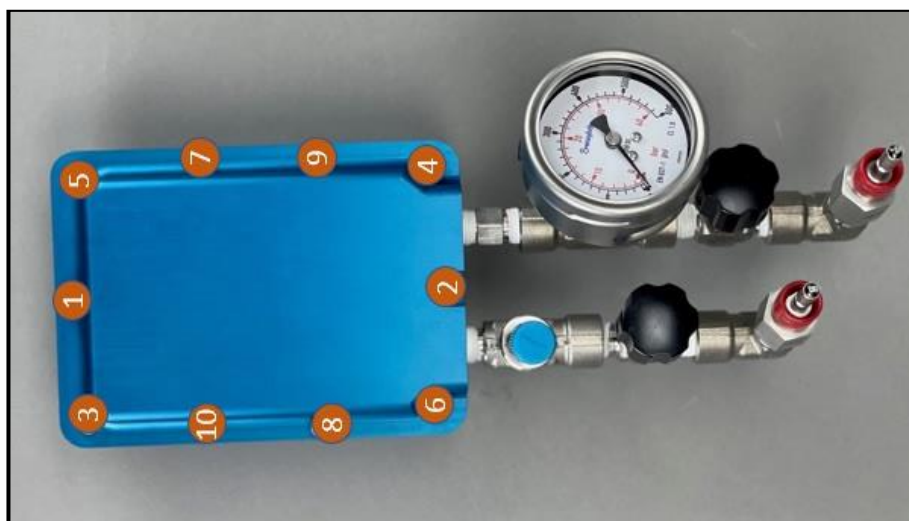


Figure 8. Suggested screw tightening order for reactor lid

4. Connect the input and output gas lines using provided Quick Connect fittings (1/4" NPT).



Figure 9. In/Out lines highlighted.

5. Push the Quick Connect fitting down onto the stem of the corresponding fitting until you hear a "CLICK".

6. Make sure the black release valve knob (see **Figure 10**) is **closed** when you want to pressurize.

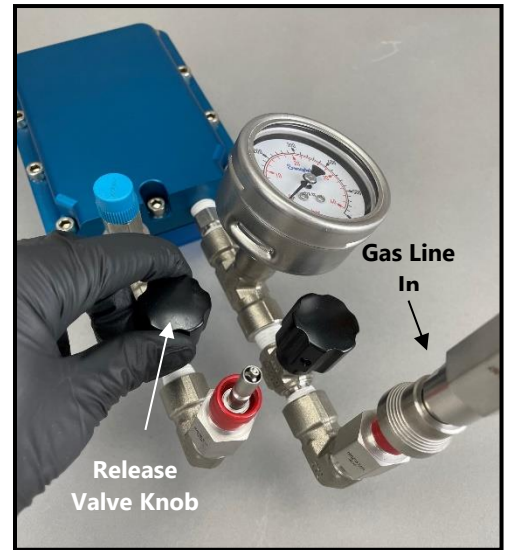


Figure 10. Release valve set to closed.

7. To let gas in, open the inlet valve by turning the knob as shown in **Figure 11**. Tighten inlet knob when the pressure on the gauge reaches desired value.



Figure 11. Inlet Valve opened.

8. After inlet knob is tightened (in "closed" position) quick connects can be removed by pushing down on the outer skirt until the unit disengages.

9. **NOTE: you may hear an audible "pop" when disconnecting the pressurized gas line in. This is a small bit of residual pressure in the line and quick connect fitting being released.**

Product Maintenance

GENERAL PRODUCT CARE

If cleaning is needed, wipe down exterior of block with wet paper towel then wipe dry or allow to air dry.

SAFETY

Use of this Reaction Block involves the use of pressurized gas and so it is the responsibility of the user to practice the appropriate safety procedures required (such as safety glasses). The Reaction Block is equipped with a **pressure relief valve** that will release at pressures of 350 psi or greater. Please perform regular tests of the pressure relief valve to ensure that it is in good working order. If a replacement is needed, please contact V&P Scientific.

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.

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.

TECHNICAL ASSISTANCE

If technical assistance is required, contact: V&P Scientific, Inc. at 858-455-0643 or sales@vp-sci.com