



**BLACOH™**  
INDUSTRIES

# HYBRID

COMBINATION DAMPENER & BACK PRESSURE

# VALVE

## THE ALL-IN-ONE SMART CHOICE



Blacoh's patented Hybrid Valve™ combines the steady flow control of a pulsation dampener with the regulation of a back pressure valve in a single construction that out performs systems using a pulsation dampener in series with a back pressure valve. Using a back pressure valve alone does nothing to improve fluid flow. Adding a pulsation dampener can improve fluid flow but, the dampening effect is reduced by the back pressure valve. By combining the functionality of a back pressure valve with a pulsation dampener we were able to optimize performance and efficiency.

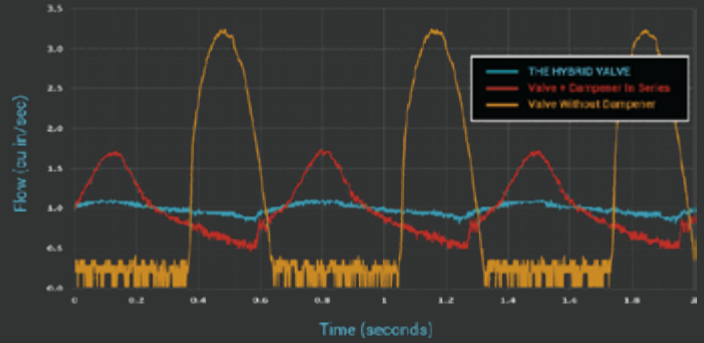
## A SIMPLIFIED SOLUTION



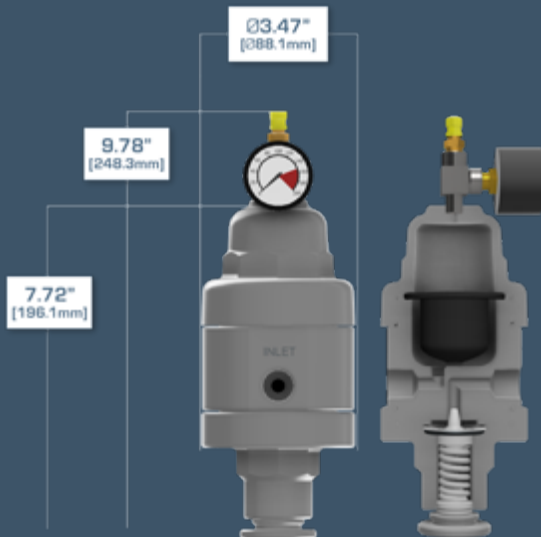
Standard back pressure valves are not designed to work with a pulsation dampener. As pressure varies in the dampener, the back pressure valve negates the dampening effect by opening and closing before the dampener is able to capture a full pulse. The quick opening and closing of the back pressure valve also creates too much gain (flow) resulting in inefficiency and chatter. Blacoh's Hybrid Valve with patented flow stabilization technology ensures maximum dampening, applies continuous back pressure, and acts as an anti-siphon valve to create a smooth laminar flow with no valve chatter plus, fewer connections and leak points.

# THE PERFORMANCE IS IN THE NUMBERS

Engineered with proven principles for optimum performance, maximum efficiency and simplicity, the Blacoh Hybrid Valve is the all-in-one smart choice in any pumping system. Tests performed using a back pressure valve alone showed no improvement in fluid flow (see orange line in graph at right). Fluid flow improves significantly with a pulsation dampener in series (shown in red) but, the dampener is not operating at peak efficiency. Nothing matches the outstanding results when the back pressure valve and dampener are replaced with the single construction Hybrid Valve (shown in blue).



## TECHNICAL INFORMATION



### Housing Material

- PVC (V)
- CPVC (C)
- Polypropylene (P)
- PVDF (K)
- Stainless Steel (S)

### Connection Size

- 1/4" (025)
- 3/8" (038)
- 1/2" (049)

### Inlet Type

- NPT
- BSP (BSP)
- Socket Weld 1/2" (SW)
- Flange 1/2" (F)
- Union 1/2" (U)

### Bladder Material

- Buna (B)
- EPDM (E)
- Hypalon (H)
- Neoprene (N)
- PTFE (T)
- Santoprene (W)
- Viton (V)

### Diaphragm

- PTFE (T)

### Valve Spring

- 5-150 psi
- 5-50 psi (-L)

## MODEL NUMBERS

