

# DATA SHEET

## POP-OFF VALVE



*The Pumps with Nine Lives*

**Brass Model: 9940**

**Stainless Steel Model: 9941**



Model 9940 Shown

### SPECIFICATIONS

|                                | U.S. Measure   | Metric Measure |
|--------------------------------|----------------|----------------|
| Flow Range                     | 0–25 gpm       | 0–95 lpm       |
| System Pressure Range          | 1000–4000 psi  | 69–275 bar     |
| Maximum relief setting         | 4400 psi       | 303 bar        |
| Maximum Operating Temperature: |                |                |
| Standard – NBR                 | 180°F          | 82°C           |
| FPM – .0110                    | 240°F          | 115°C          |
| Inlet Port                     | ¾" NPT(M)      | ¾" NPT(M)      |
| Barb                           | 1.0"           | 1.0"           |
| Weight                         | 9.6 oz.        | .27 kg         |
| Dimensions                     | 1.125 x 3.500" | 28.6 x 88.9 mm |

### FEATURES

- Provides back-up protection as a secondary relief valve to assure complete pressure relief for maximum pump and system protection.
- Lightweight, compact design quickly and conveniently mounts directly into discharge line.
- Standard Pop-Off Valves are fitted with NBR O-Rings. Optional O-Rings are available for higher-temperature and chemical compatibility.

FPM – .0110 (9940.0110, 9941.0110)

### SELECTION

Select a Pop-Off Valve to meet or exceed the flow and pressure requirements of the system.

### INSTALLATION

The Pop-Off Valve should be mounted in the discharge line before any pressure regulator or unloader in the system to provide optimum protection. Following final pressure adjustment, attach a hose over the barb end of the Pop-Off Valve and commence operation. The exit flow from the Pop-Off Valve should be returned to a reservoir or drain to the floor, not to the inlet of the pump.

### PRESSURE ADJUSTMENT

**Note:** Setting and adjusting the primary regulating device and Pop-Off Valve must be done with the system "on".

Set the primary pressure regulating device to its minimum setting by turning the adjustment handle in counterclockwise direction.

On the Pop-Off Valve, hand-thread the lock nut towards the ¾" NPT(M) inlet port. Then slide the O-Ring down to the lock nut. Set the Pop-Off Valve to its maximum setting by turning the adjusting barb in clockwise direction.

Set the primary pressure regulating device to desired system operating pressure by turning the adjustment handle in counterclockwise direction.

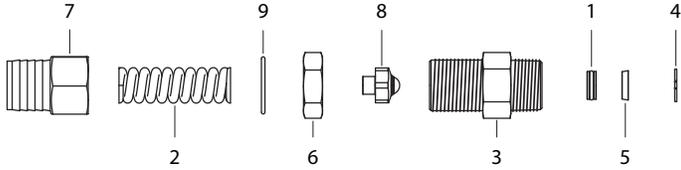
With your system's primary pressure device operating at desired pressure, slowly back the adjusting barb on the Pop-Off Valve counterclockwise until a small amount of water is dripping. Immediately adjust in ½ turn increments until dripping stops (no more than three ½ turns should be required). Slide O-Ring up to the adjusting barb and then hand-thread lock nut up to O-Ring and adjusting barb so O-Ring is fully compressed.

### OPERATION

This Pop-Off Valve provides back-up protection to the primary relief valve for complete pressure relief and maximum pump and system protection.

**Note:** The Pop-Off Valve is a secondary safety device, it does not replace a pressure regulator or unloader.

## EXPLODED VIEW



## TYPICAL POP-OFF VALVE INSTALLATION

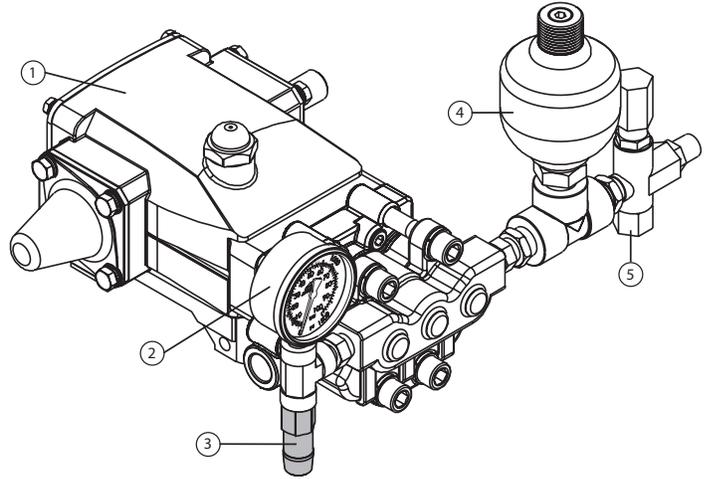
1. Triplex Plunger Pump
2. Pressure Gauge
3. Pop-Off Valve (Secondary Relief Valve)
4. Pulsation Dampener
5. Pressure Sensitive Regulating Unloader

## PARTS LIST

| ITEM DESCRIPTION                        | 9940 BB |      | 9941 SS |      | QTY |
|---|---------|------|---------|------|-----|
|   | P/N     | MATL | P/N     | MATL |     |
| 1 Seat, with O-Ring                     | 31205   | NBR  | 76567   | SS   | 1   |
| 2 Spring, Pressure                      | 33329   | STZP | 994778  | S    | 1   |
| 3 Body, Inlet [ $\frac{3}{4}$ " NPT(M)] | —       | BB   | —       | SS   | 1   |
| 4 Ring, Retaining                       | 76529   | SSS  | 76529   | SSS  | 1   |
| 5 Spacer, Seat                          | 76530   | BB   | 76570   | SS   | 1   |
| 6 Nut, Lock                             | 76531   | BB   | 76571   | SS   | 1   |
| 7 Barb, Adjusting (1")                  | —       | BB   | —       | SS   | 1   |
| 8 Retainer, Spring – with Ball          | 76533   | BB   | 76573   | SS   | 1   |
| 9 O-Ring, Barb–70D                      | 76125   | NBR  | 76125   | NBR  | 1   |

Material Codes (Not Part of Part No.):

BB=Brass FPM=Fluorocarbon NBR=Medium Nitrile S=304SS  
SS=316SS SSS=416SS STZP=Steel/Zinc Plated



## TROUBLESHOOTING

|                             |   |
|-----------------------------|---|
| Valve cycles                | <ul style="list-style-type: none"> <li>• Valve is improperly set. Repeat adjustment procedure.</li> </ul> |
| Valve continually by-passes | <ul style="list-style-type: none"> <li>• Seat or retainer is worn. Replace as needed.</li> </ul>          |

### ⚠ CAUTIONS AND WARNINGS

All high-pressure systems require a primary pressure regulating device (i.e. regulator, unloader) and a secondary pressure relief device (i.e. pop-off valve, relief valve). Failure to install such relief devices could result in personal injury or damage to pump or property. Cat Pumps does not assume any liability or responsibility for the operation of a customer's high-pressure system.

Read all CAUTIONS and WARNINGS before commencing service or operation of any high-pressure system. The CAUTIONS and WARNINGS are included in each Service Manual and with each Accessory Data sheet. CAUTIONS and WARNINGS can also be viewed online at [www.catpumps.com/dynamic-literature/cautions-and-warnings](http://www.catpumps.com/dynamic-literature/cautions-and-warnings) or can be requested directly from Cat Pumps.

### WARRANTY

View the Limited Warranty on-line at [www.catpumps.com/literature/cat-pumps-limited-warranty](http://www.catpumps.com/literature/cat-pumps-limited-warranty)