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 ensure 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 mount to the discharge port of the pump manifold, opposite from the primary pressure control valve. If unavailable, plumb the Pop-Off Valve parallel to the high-pressure line upstream from the primary pressure control valve. The bypass flow from the Pop-Off Valve should be returned to a reservoir as a preferred method or drain to the floor. Do not route the bypass flow back to the inlet of the pump.

OPERATION
This Pop-Off Valve provides backup protection to the primary regulator 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 primary pressure control device like a pressure regulator or unloader.

PRESSURE ADJUSTMENT
Setting and adjusting the primary regulating device and Pop-Off Valve must be done while the system is running. Set the primary pressure regulating device to its minimum setting by turning the adjustment handle counter-clockwise.

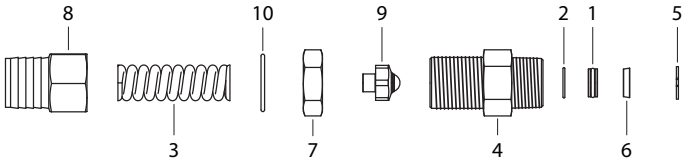
On the Pop-Off Valve, hand-thread the lock nut towards the ¾" NPT(M) inlet port and slide the O-ring down to the lock nut. Turn the adjusting barb clockwise to the highest pressure setting, then counter-clockwise slightly, so the valve is not bottomed out.

With the system on and running, actuate the flow downstream. Adjust the primary pressure control valve clockwise to increase the system operating pressure to desired set point.

Note: If there is visible water coming from the Pop-Off Valve bypass port during this process, continue to increase its setting.

While the system is operating at full pressure, slowly turn the Pop-Off Valve's adjusting barb counter-clockwise until a small amount of water is dripping from it. Adjust a half-turn clockwise until the dripping stops; no more than three half-turns should be required. Cycle the downstream flow on and off to check for any leaks. A closing trigger gun or solenoid valve may create a pressure spike and cause the pop-off valve to leak. Re-adjust as necessary. Slide the O-ring up to the adjusting barb. Hand-thread the lock nut up to the O-ring and the adjusting barb to compress. The pop-off valve is now set approximately 200 to 300 psi over the system pressure.

EXPLODED VIEW



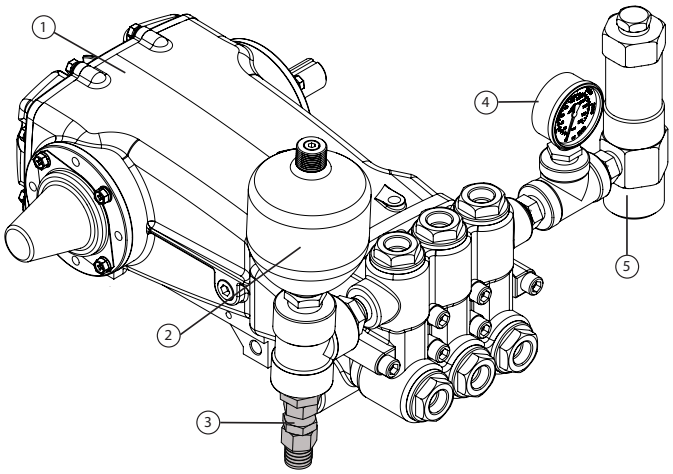
TYPICAL POP-OFF VALVE INSTALLATION

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

PARTS LIST

ITEM	DESCRIPTION	9940 BB P/N	9940 BB MATL	9941 SS P/N	9941 SS MATL	QTY
1	Seat	**31205**	S	**76567**	SS	1
2	O-Ring, Seat	32008	NBR	32008	NBR	1
		33562	FPM	33562	FPM	1
3	Spring, Pressure	**33329**	STZP	**994778**	S	1
4	Body, Inlet [¾" NPT(M)]	—	BB	—	SS	1
5	Ring, Retaining	76529	SSS	76529	SSS	1
6	Spacer, Seat	**76530**	BB	**76570**	SS	1
7	Nut, Lock	**76531**	BB	**76571**	SS	1
8	Barb, Adjusting (1")	—	BB	—	SS	1
9	Retainer, Spring with Ball	**76533**	BB	**76573**	SS	1
10	O-Ring, Barb–80D	44001	NBR	44001	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	• Valve is improperly set. Repeat adjustment procedure.
Valve continually bypasses	• Seat or retainer is worn. Replace as needed.

⚠ 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 or can be requested directly from Cat Pumps.

WARRANTY
View the Limited Warranty online at www.catpumps.com/literature/cat-pumps-limited-warranty

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