



# PIJTTERSEN

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## FEATURES

- Special hardened stainless steel seat and "Acetal" needle valve or stainless steel seat and needle valve eliminates weeping.
- Lightweight, compact design quickly and conveniently mounts directly into discharge line.
- Provides back-up protection to assure complete pressure relief for maximum pump and system protection.

## 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/cautions-warnings](http://www.catpumps.com/cautions-warnings) or can be requested directly from CAT PUMPS.

## WARRANTY

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

## Pop-Off Valves

### Standard Models

30960,30961

33960,33961

33962

### High Temperature Models

33960S,33961S

33962S

## SPECIFICATIONS

	U.S. Measure	Metric Measure
<b>MODEL 30960</b>		
System Pressure Range .....	300-1500 psi	(20-105 bar)
Inlet Port .....	1/4" NPTM	(1/4" NPTM)
<b>MODEL 33960, 33960S</b>		
System Pressure Range .....	300-1500 psi	(20-105 bar)
Inlet Port .....	3/8" NPTM	(3/8" NPTM)
<b>MODEL 30961</b>		
System Pressure Range .....	1000-3000 psi	(70-210 bar)
Inlet Port .....	1/4" NPTM	(1/4" NPTM)
<b>MODEL 33961, 33961S</b>		
System Pressure Range .....	1000-4000 psi	(70-275 bar)
Inlet Port .....	1/4" NPTM	(1/4" NPTM)
<b>MODEL 33962, 33962S</b>		
System Pressure Range .....	1000-4000 psi	(70-275 bar)
Inlet Port .....	3/8" NPTM	(3/8" NPTM)

## COMMON SPECIFICATIONS

Maximum Flow .....	6.0 gpm	(23 lpm)
Maximum Operating Temperatures:		
Standard Models .....	180°F	(82°C)
High Temperature Models .....	240°F	(116°C)
Barb .....	3/4"	(3/4")
Weight .....	2.96 oz.	(0.84 kg)
Dimensions .....	0.75 x 2.375"	(19 x 60 mm)

**SELECTION:** Select a pop-off valve to meet or exceed the flow and pressure requirements of the system. The valve with the blue spring covers the 1000-3000 PSI range, the silver spring covers the 300-1500 psi range and the red spring covers the 1000-4000 psi range.

**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. On pumps with a modular unloader, replace one valve plug with a special plug with a 1/4" or 3/8" tapped port and thread in the pop-off valve. 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. Following final pressure adjustment, attach a hose over the barb end of the pop-off valve and commence operation.

**OPERATION:** The adjustment screw is internal on this pop-off valve. Using a 1/4" allen wrench, the pressure setting may be **increased** by turning **clockwise** or **decreased** by turning **counterclockwise**.

**SETTING:** Before system is brought up to pressure ensure that the primary pressure regulating device is set at its minimum setting. Adjust the pop-off valve to a high pressure setting by turning the adjustment screw approximately 1/2" from flush. Bring your system up to desired pressure using the primary pressure device. **NOTE: If the Pop-Off Valve relieves water in this process increase its setting.** With your system operating at full pressure with the primary pressure device, slowly back the pop-off adjustment screw until a small amount of water is dripping. Immediately adjust in 1/2 turn at a time until dripping stops; (no more than [3] 1/2 turns should be required). The pop-off valve is now set at approximately 10% over system pressure.

**REMEMBER, THE POP-OFF VALVE IS A SECONDARY SAFETY DEVICE. IT DOES NOT REPLACE A PRESSURE REGULATOR OR UNLOADER.**

## PARTS LIST

P/N	MATL	DESCRIPTION	QTY
31135	S	Seat	1
76974	S	Valve, Needle (33960S, 33961S, 33962S)	1
31128	D	Valve, Needle	1
30956	S	Spring, Silver (1500 psi)	1
30957	S	Spring, Blue (3000 psi)	1
33957	S	Spring, Red (4000 psi)	1
—	BB	Body - 1/4" NPTM	1
—	BB	Body - 3/8" NPTM	1
30959	BB	Adjustment Screw	1

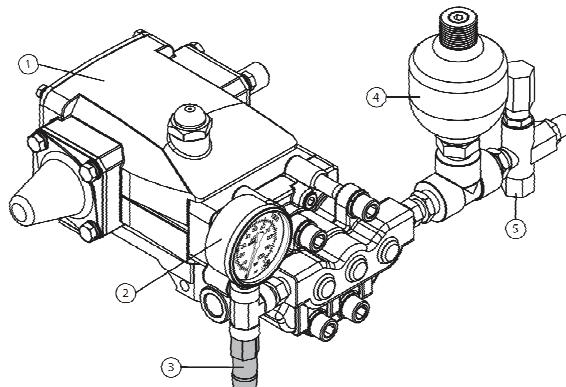
Material Codes (Not Part of Part No.):  
BB=Brass D=Acetal S=304SS

## TROUBLESHOOTING

Valve cycles	Valve is improperly set. Repeat adjustment procedure.
Valve continually by-passes	Seat or needle valve is worn. Replace as needed.

## 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



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