



## High Pressure Relief Valve

Model

7190

### FEATURES

- Provides system pressure setting and protection for single or multiple gun and pump systems.
- 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.

### SPECIFICATIONS

	U.S. Measure	Metric Measure
Maximum Flow .....	6.5 GPM	(25 L/M)
Pressure Range .....	400-5000 PSI	(28-345 BAR)
Maximum Temperature .....	194°F	(90°C)
Inlet Port .....	3/8" BSPF	(3/8" BSPF)
Discharge Port.....	3/8" BSPF	(3/8" BSPF)
By-Pass Port.....	3/8" BSPF	(3/8" BSPF)
Weight .....	16.7 oz.	(.47 kg)
Dimensions .....	5.1 x 2.1 x 1.1"	(129.5 x 53 x 28 mm)

Relief valve is stamped with a European safety pressure. Use only at above specifications to assure proper relief valve life and performance.

**SELECTION:** Select a Relief Valve to meet or exceed the flow and pressure requirements of the system.

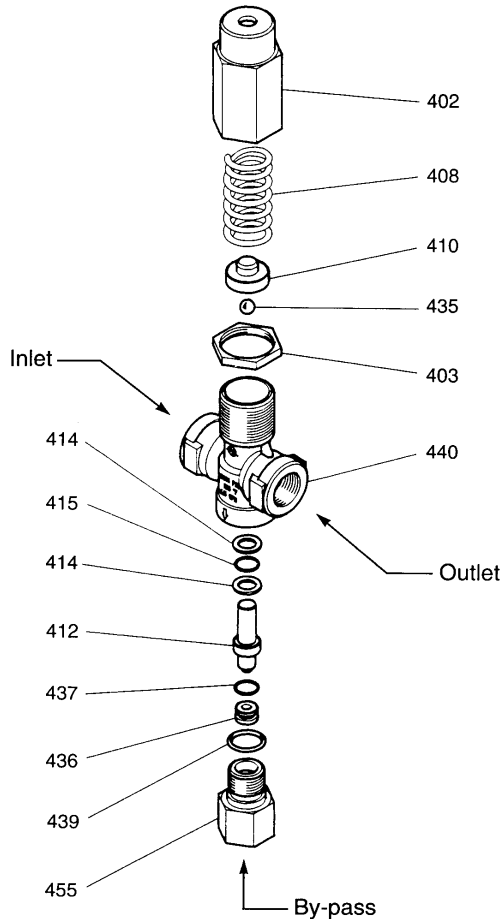
**INSTALLATION:** The Relief Valve should be mounted in the discharge line **before any other accessories in the system** to provide optimum protection to the pump. The by-pass from the Relief Valve may be returned to the reservoir or drain to the floor. By-pass returned to the inlet of the pump should be done with caution to avoid pressure spikes or excessive heat build-up from recirculating liquids.  
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#### **⚠ WARNING**

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

*“Customer confidence is our greatest asset”*

## EXPLODED VIEW



## PARTS LIST

ITEM	P/N	MATL	DESCRIPTION	QTY
402	33404	BB	Cap, Adjusting	1
403	33327	BB	Nut, Lock	1
408	33329	STZP	Spring	1
410	33408	BB	Retainer, Spring	1
412	33409	S	Piston	1
414	32873	PTFE	Back-up-Ring	2
415	—	NBR	O-Ring, Piston	1
435	33328	S	Ball, Seat 1/4"	1
436	33383	S	Seat	1
437	33559	FPM	O-Ring	1
439	—	NBR	O-Ring	1
440	—	BB	Valve Body	1
455	33405	BB	Fitting, By-pass	1
468	33435	NBR	Kit, O-Ring (Incls: 414, 415, 437, 439)	1

*Italics are optional items.*

Material Codes (Not Part of Part No.):

BB=Brass FPM=Fluorocarbon NBR=Medium Nitrile (Buna-N)  
PTFE=Pure Polytetrafluoroethylene S=304SS STZP=Steel/Zinc Plated

**OPERATION:** The hex adjustment cap is located at the top of the Relief Valve, the inlet and discharge ports are located on the sides and the by-pass port is located at the bottom. Using a 27mm wrench, the pressure setting may be **increased** by turning **clockwise** or **decreased** by turning **counterclockwise**.

The Relief Valve should be set in **small** increments. Check your pressure gauge following each adjustment. It may be convenient to **set your unloader or regulating device** for the system working pressure in **small** increments, as you are setting the Relief Valve. The final adjustment for the Relief Valve should be set to relieve at approximately **200 PSI above the system working pressure**.

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

## TROUBLESHOOTING

Valve chatters	<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 piston valve is worn. Replace as needed.</li> </ul>
Leaking out the top of valve	<ul style="list-style-type: none"> <li>• O-Ring on piston worn or cut. Replace as needed.</li> </ul>

## WARRANTY

### 90 Day Warranty

Refer to complete CAT PUMPS Warranty for further information.

Products described hereon are covered by one or more of the following U.S. patents 3558244, 3652188, 3809508, 3920356, 3930756 and 5035580

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