



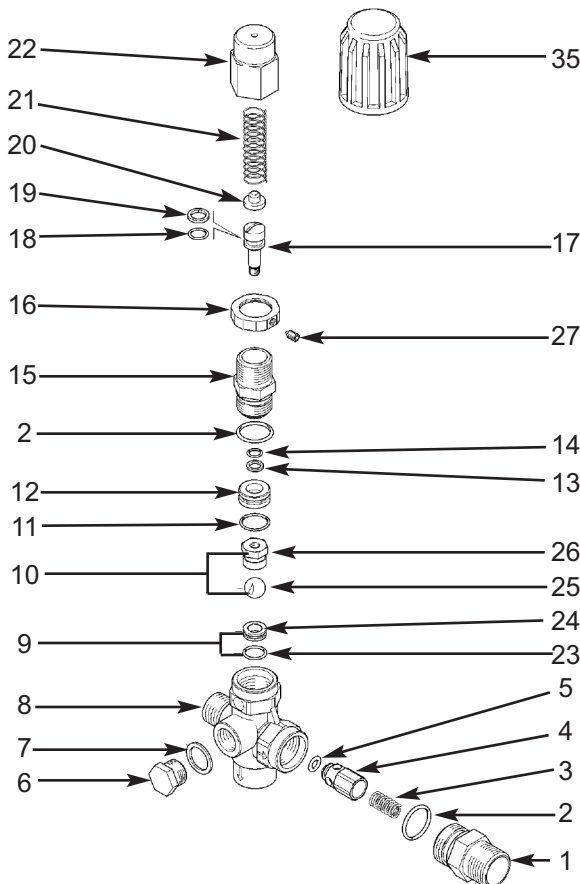
### FEATURES

- Sturdy steel and brass construction
- Adjustable locknut to control max pressure
- Easy maintenance
- Hexagonal discharge check valve to prevent jamming

### SPECIFICATIONS

Part Number	YVB3K
Maximum Flow	6.5 GPM
Maximum Discharge Pressure	3650 PSI
Maximum Temperature	195 °F
Port Sizes:	
Inlet	3/8" BSP-M
Outlet	3/8" BSP-M
Bypass	3/8" BSP-F
Dimensions	5.29" x 3" x 2.3"
Shipping Weight	1.0 lbs.
Materials	Brass, Stainless Steel, Plastic

### PARTS LIST



Item	Part Number	Description	Kit	Qty
1	Y60190231	Shutter Couple., 3/8 BSP-F		1
2	Y10306600	O-ring, 1.78x15.6mm	*	2
3	Y60086751	Spring, 0.5x6.5x22mm, SS		1
4	Y60085931	Shutter Pin, Brass		1
5	Y10312500	O-ring, 2.5x4mm	*	1
6	Y28001331	Plug, Brass, 1/4 BSP (2)		1
7	Y14391100	Washer, 13.5x19x1.5		1
8	Y60190135	Valve Housing, 3/8 BSP, Brass		1
9	Y60087220	Seat, 7.5mm + O-ring	*	1
10	Y60087121	Rest, M5, Brass + Ball	*	1
11	Y10306000	O-ring, 1.78x12.42mm	*	1
12	Y60086331	Spacer Ring, 6.2x16x6, Brass		1
13	Y10400600	Back-up Ring, 8.6x6x1.2mm	*	1
14	Y10305101	O-ring, 1.78x6.07mm	*	1
15	Y60030331	Piston Holder, Brass		1
16	Y60031931	Locknut, M18x1, Brass		1
17	Y60033151	Piston, M5, SS		1
18	Y10305500	O-ring, 1.78x7.66mm	*	1
19	Y10400800	Back-up Ring, opn, 8x11x1.2	*	1
20	Y60031061	Spring Guide		1
21	Y60086261	Spring, 3.3x12.6x41mm		1
22	Y60030431	Valve Regulating Knob, Brass		1
23	Y10300500	O-ring		1
24	Y60086451	Seat		1
25	Y14744310	Ball, 11/32", SST		1
26	Y60085731	Rest, M5, Brass		1
27	Y16210000	Set Screw		1
35	Y60031584	Knob		1

\* YKITVB3KTT Repair Kit

### APPLICATION

This product is to be used with clean, fresh water. For different or corrosive liquids, contact **GP Companies Inc.** technical support department. Appropriate filtration should be installed when used with liquids containing any solids. Select the proper unloader valve based on the nominal operating rating: system rated pressure, max flow and max temperature. **Under no circumstances should the pressure of the system exceed the maximum rated pressure of any component.**

### INSTALLATION

When installed on hot water cleaners, this valve is to be installed **before** the boiler. Installing safety devices which limit the accidental increase of the fluid temperature is required.

**Always** install a safety valve (pop-off) to protect the operator and system.

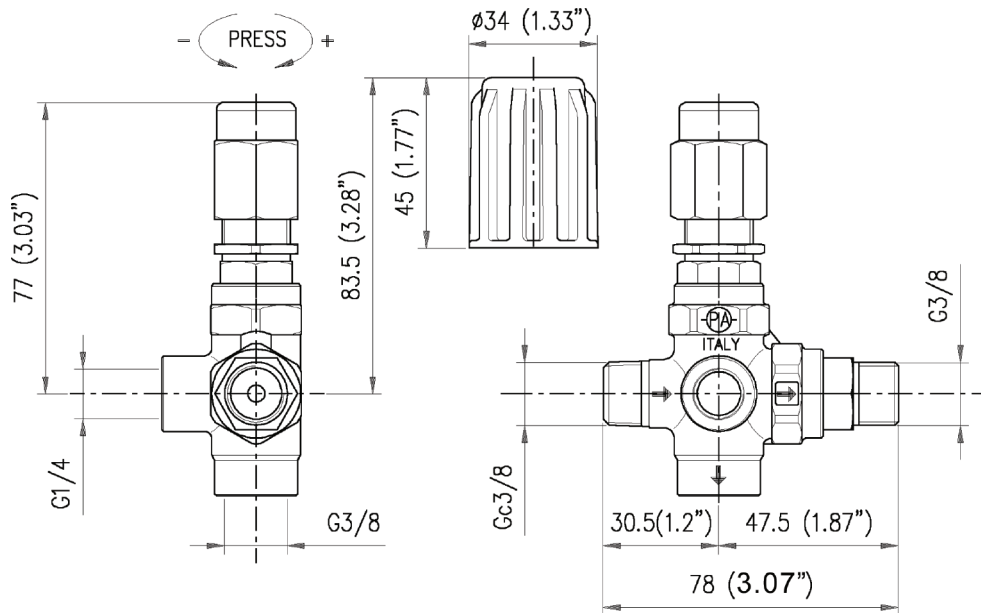
Choose the correct nozzle size, able to discharge regularly, on bypass, at least 5% of the total flow of the system in order to achieve a constant pressure, and avoid troublesome pressure spikes.

When the nozzle wears, the pressure drops. After installing a new nozzle, re-adjust the system to the original pressure setting.

### TROUBLESHOOTING

PROBLEMS	PROBABLE CAUSES	SOLUTIONS
Unloader cycles	<ul style="list-style-type: none"> <li>Damaged seat or cone</li> <li>Fitting leaking</li> <li>Restricted bypass</li> </ul>	<ul style="list-style-type: none"> <li>Replace</li> <li>Check and renew</li> <li>Clean or adapt</li> </ul>
Unloader does not come up to pressure	<ul style="list-style-type: none"> <li>Unloader not properly sized</li> <li>Foreign materials between seat and shutter</li> <li>Piston o-ring worn out</li> <li>Nozzle worn out</li> </ul>	<ul style="list-style-type: none"> <li>Select a proper spring or a new unloader</li> <li>Clean the seat</li> <li>Replace</li> <li>Replace</li> </ul>
Pressure spikes	<ul style="list-style-type: none"> <li>Spring totally compressed</li> <li>Excessive flow in bypass</li> <li>There is not a min. 5% of total flow in bypass</li> </ul>	<ul style="list-style-type: none"> <li>Loosen and change nozzle size</li> <li>Select another unloader</li> <li>Adjust size of piping</li> <li>Adjust</li> </ul>
Unloader does not bypass at low pressure	<ul style="list-style-type: none"> <li>Check valve jammed</li> <li>Check valve o-ring worn out</li> <li>Foreign materials on check valve</li> </ul>	<ul style="list-style-type: none"> <li>Clean or replace</li> <li>Replace</li> <li>Clean</li> </ul>

### DIMENSIONAL DRAWING



Ref 300787 Rev. A  
10-10