



# Solutions To IK Problems

**Problem: Blowing Pressure adjustments on Diamond Power Poppet valves**

**Issues:** Difficulty removing pipe plugs from side of valve  
Very time consuming and labor intensive  
Safety Issues

**Solution: Replace poppet valve with Clyde Bergemann, Inc. EZ-SET Poppet valve.**

**Advantages:** Ability to adjust pressure during a blowing cycle  
No plugs to be removed  
Bolt-on replacement  
Fits both 2 3/8 and 2 3/4" feedtube sizes

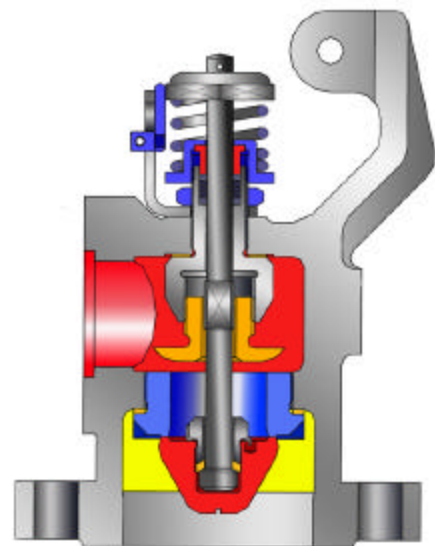
The original poppet valve incorporated a pressure disk inside the valve, which is held in place by a lock pin plug. The pressure disk is located on the valve stem guide within the valve. A gauge would be plumbed into the valve and the sootblower is operated and the blowing pressure is measured. If an adjustment is required, the lock pin plug must be removed and pressure disk raised or lowered (increase pressure or decrease pressure) and sootblower re-run to confirm pressure. This process repeated until desired blowing pressure is obtained.

The EZ-SET allows pressure adjustment during a blowing cycle eliminating the multiple attempts at obtaining the required pressure setting.

**CLYDE BERGEMANN - Advanced Boiler Cleaning Solutions!**

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***Our EZ-Set Poppet Valve  
is the SMART Choice for  
your IK's!***



probably happen. Either a lot of time is spent on the process or the adjustment process is skipped altogether which may result in pluggage of the boiler or excessive steam usage.

**Solution: Our EZ-Set Valve**

It takes only minutes to perform an accurate pressure adjustment on the EZ-Set Externally Adjustable Poppet Valve. This adjustment is done on-line with no sootblower locking-out procedures required. No plugs need to be heated for removal and there is no chance of introducing foreign objects in the cleaning medium supply line.

**Benefits: Less \$\$**

- ✓ saves weeks of labor every year
- ✓ saves cleaning medium by allowing for accurate adjustments, which can result in, hundred's of thousand's of dollars annually.

**Problem: The IK Poppet Valve**

Sootblowers require periodic blowing pressure re-adjustment to adapt to changing boiler conditions and cleaning requirements. For a single sootblower it could take from two hours to a full day to adjust an internally adjustable type poppet valve. This adjustment process translates to a 20 to 60-day project for a mechanic to check and/or change the pressure settings on 60 sootblowers. With this labor-intensive process, one of two things will

## We make the Decision “EZ”

The EZ-Set Valve is a direct bolt-on replacement of the IK valve.

- It can be supplied with a custom mounted pressure gauge.
- It has a proven track record with 1000's of installations.
- It costs the same as a regular valve.
- It is in stock and ready for shipment.

## Adjustment Concept

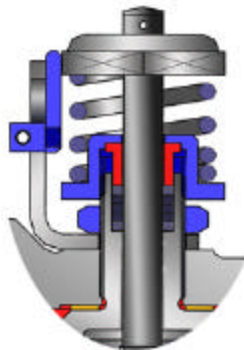


The EZ-Set adjustment concept follows a very simple design rule. The square hole in the adjustment disk is sized to accommodate the square section of the valve stem. As the valve stem is turned it translates its rotational motion to the pressure disk,

which threads the pressure disk into or out of the valve stem guide. Through this action the pressure disk increases or decreases the area just above and downstream from the valve seat. The changes in this area actually increase or decrease the cleaning medium pressure delivered to the nozzles. This simple idea can translate into major maintenance and operational savings in the boiler cleaning operation.

## Safety and Adjustability

The pressure adjustment is accomplished through an adjustment nut located at the top of the valve stem. By turning this nut the stem rotates thus turning the pressure disk to perform the adjustment. The locking device on the side of the adjustment nut holds the packing nut in place while



the adjustment is made and secures the adjustment nut during normal sootblower operation. Not only is safe adjustments accomplished but security against pressure adjustment shift during operation is insured.

## Breathe New Life into your Sootblowers with the EZ-Set Poppet Valve

The poppet valve plays a major role in the proper operation of sootblowers. If the poppet valve is not set correctly, excessive lance failures can be experienced, boiler tube erosion can occur, cleaning medium can be wasted and damage to other components on the sootblower can happen.

### The EZ-Set Advantage:

- ✓ The EZ-Set valve can be adjusted on-line in minutes without having to lock –out or isolate the sootblower.
- ✓ Pressures can be more accurately set leading to cost savings and improved cleaning.
- ✓ The locking device prevents pressure shift during operation and provides a positive lock on the packing nut while adjustments are made.
- ✓ The EZ-Set poppet valve is easily rebuildable due to removable cartridge design.
- ✓ The EZ-Set poppet valve is a direct replacement for most IK long retractable sootblowers.
- ✓ When used in conjunction with the Clyde Bergemann CFE nozzle, the EZ-Set poppet valve makes true boiler optimization easier and quicker.
- ✓ It can be adjusted with a standard two-inch open-end wrench.

**The EZ-Set Externally Adjustable Poppet Valve is ready for immediate shipment. Contact your local representative or call Clyde Bergemann Direct (800) 241-5996 for order and shipping details.**