



# GENESIS SYSTEMS, INC.

VALVES • ACTUATORS • CONTROLS

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## **Application Case Study: Reliable Valve for High Pressure Ash Water**

A Texas coal fired power plant had been using a competitor's high performance butterfly valve for several years. The service is 400-500 PSI water with particulate from the bottom ash system. Many coal fired stations move the bottom ash with a high pressure water system. This site started experiencing numerous leakage problems with their existing valves. We proposed using a Keystone KLOK ANSI 300# high performance butterfly valve for the application. The customer installed the new valve and determined that the Keystone KLOK worked considerably better because of the seat design. Specifically, the KLOK does NOT have a line energized seat design. Line energized designs require a cavity behind the seat to allow the line pressure to help create the seal. This cavity can fill with the solid media which prevents seat movement and therefore allows leakage. A small leak when the media is 450 PSI ash water quickly becomes a big leak. The KLOK has an interference seat in a double offset eccentric design which does not require line pressure to seal. Since 2004 many of our power plant customers have standardized on the Keystone KLOK valve for their high pressure ash water systems and are very pleased with the performance.

The sizes range from 3"-12" and typically have direct mount pneumatic or electric quarter-turn actuators. Normally these valves are supplied with a wafer style, ANSI 300#, 316 SS body and trim but other materials and body variations are available.

This is another example how Genesis Systems combines years of valve automation experience with a willingness to do whatever it takes in order to exceed our customer's valve and valve automation requirements and expectations.

If you would like additional information on this application or any of our other specialty valve or valve automation packages, please contact Ron Patterson ([Ron@callgenesis.com](mailto:Ron@callgenesis.com)) at our office or your local Genesis Systems Territory Manager.