VALVTECHNOLOGIES

Case Study

V1-2 Engineered Solutions

Overview: During a routine maintenance inspection at a petrochemical plant in the Texas Gulf Coast, technicians found a defective double ball valve that was installed in the reactor block valve application. Maintenance determined that the valve could no longer hold pressure, causing significant seat leakage in the closed position. The faulty valve proved to be inefficient, jeopardizing the safety of the plant and its personnel. The engineering manager contacted the original manufacturer only to learn that they were no longer in business and therefore, could not provide repair and service.

ValvTechnologies' in-house HVOF RiTech® allows for exceptional quality control, shortened lead times for quick turnaround and longer-lasting products.

Location:	Texas Gulf Coast
Plant type:	Polyethylene
Industry:	Hydrocarbons
Application:	Reactor block valve
Product:	V1-2 with HVOF RiTech® coating

Zero-Leakage High-Performance Valves

Requirement: The persistent underlying problem for the plant was the isolation of block valves from the reactor exceeded the parts per million allowed by plant standards. The customer, in need of properly engineered zero-leakage performing valves, sought out ValvTechnologies to provide a solution that would use the most advanced technology to reduce high maintenance costs and ensure safe conditions for the plant and its staff.

Solution: As a result, ValvTechnologies supplied the polyethylene plant with a V1-2 8" 300# A216 WCB face flanged double valve with RiTech® 31 coating. The valve was designed to have a limited space between the two balls to detect if any leakage was past the primary (upstream ball), two valves were installed between the balls to detect any possible leakage. The primary ball was automated with a pneumatic actuator, while the

Solution: (continued) secondary ball was automated with a gear and air motor. The automation system included a mechanical lock-out system to lock the balls in the close position against the full rated open torque of the actuators. The valves were required to be tested on nitrogen from 0 -1200 psig in 100 psig increments, each pressure being held for a minimum of 10 minutes with zero isible leakage.

Result: ValvTechnologies' superior V1-2 valves and proprietary RiTech® coating process provided the plant an engineered solution compliant with facility and industry standards. The valves contributed to an overall improvement on system reliability, increased efficiencies and safety ultimately saving the plant thousands of dollars.