

# Valve Diagnostics

## Full-Service Integrated Valve & Actuator Maintenance & Testing

**Safety in nuclear plants** is an essential part of their commissioning. Westinghouse offers integrated diagnostic testing services and maintenance solutions with the aim of ensuring the maximum operational capacity of the systems, equipment, and components in nuclear plants. Our testing services also allow plants to meet the codes and standards required by the strict nuclear regulations. Performing efficient valve diagnostics is essential for the avoidance of future incidents, as well as allowing a site to adjust its maintenance plans to the condition of the equipment and assess its **remaining lifespan**.

### Customer Benefits

Westinghouse differentiates from its competition by providing a fully integrated testing service. The integration of both the diagnostics and maintenance services has a direct effect on the efficiency of nuclear power plants, creating value both in terms of both the **optimization of resources** and cost savings, as well as an increase in the quality of service.

Westinghouse offers these integrated solutions with the goal of **reducing downtime** and improving plant performance while maintaining its **safety and reliability**.

In addition, our **services are provided on all industry brands** of air operated control valves, their actuators, motor operated valves, and associated accessories.

### Delivering our Testing Services

These **testing services** are performed through the installation of specific sensors on the equipment to measure certain parameters of the valve and understand its behavior under different conditions. Subsequently, a **detailed analysis** of these parameters is performed to issue a precise diagnostic of the system or component status. Highly advanced instrumentation is used to carry out the valve diagnostics to guarantee that both the national and international regulations are met.

Westinghouse has a team of multi-disciplined, qualified (Level I-III and certified in various test methods and techniques), and experienced professionals to successfully execute the various testing methods. This ensures that the work will be carried out to the highest possible standards without risk to personnel or the plant.

Our team has experience performing MOV, AOV, and check valve tests at more than 60 outages in both PWR and BWR valves.

## AOV Diagnostic Testing

Diagnostic testing using all major testing platforms including VOTES Infinity®, QuikLook®, and Flowsscanner®. A complete diagnostic of the operability of the valve can be performed by measuring and calculating seat load, available seating force, unseating force, valve friction, stroke length, spring rate, benchset, etc. For rotary valves, the actuators can be calibrated with our test bench to confirm the actuator capability.

## MOV Diagnostic Testing

Diagnostic testing using all major testing platforms including VOTES Infinity®, QuikLook®, and Flowsscanner®. When the valve strokes, either through their own Motor Control Center (MCC) or using our portable MCC, a complete diagnostic of the operability of the valve can be performed by measuring and calculating motor power, RMS current and voltage, thrust, torque, etc.

If necessary, the actuators can be calibrated with our bench test up to 3000Nm range.



## Purpose & Benefits of an Actuator Test Bench

- ✓ Verification of actuator performance post maintenance
- ✓ Pre-setting of Torque Switch prior to valve testing
- ✓ Calibration of Torque Switch vs Spring pack displacement
- ✓ Allows to calculate accurate COF in case of threaded stem

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