

# Emerson's FlowScanner™ 6000 and Diagnostics Services Reduce Petrochemical Refinery's Scheduled Valve Removal by 73%

## RESULTS

- Saved \$43,000 over trial-and-error method of valve replacement
- Improved maintenance effectiveness
- Reduced inventory of spare parts



## APPLICATION

Refinery Crude Unit

## CUSTOMER

Petrochemical complex — Canada

## CHALLENGE

Healthy valves are crucial to maintaining 24 hours/day, 7 days/week operations for this complex that supplies 30 to 40 percent of Canada's total primary petrochemicals. Historically, during scheduled maintenance, valves with decreased efficiency were pulled from the line. Once the valves were removed, they were disassembled for testing and repaired or replaced as needed. This approach proved time-consuming and inefficient. The refinery needed a reliable valve diagnostic method to maximize the effectiveness of their planned outages.

*“FlowScanning Diagnostics have helped us efficiently look after our valves. We are able to highlight valves that may have issues, and we are able to plan around those problem valves. Overall, we're very pleased with the results.”*

**Control Reliability Advisor**  
Petrochemical complex in Canada

For more information:  
[www.assetweb.com/ivs](http://www.assetweb.com/ivs)

### SOLUTION

During their 2000 turnaround, Emerson Process Management's Instrument & Valve Services provided both diagnostic services and experienced technicians to identify the inline condition of control valves for the refinery's crude unit. The combination of FlowScanner 6000 technology and diagnostic services enabled the refinery to diagnose the condition of the valves without removing or disassembling them for testing. Technicians simply hooked up the FlowScanner and ran the necessary tests to determine which valves required removal. For the initial project, 12 valves were scanned. The refinery was so pleased with the results, technicians went on to scan 48 valves (four times the initial number).

Technicians found that 19 out of 48 valves scanned required no action, resulting in a savings of \$43,000 over the refinery's former trial-and-error method.

Instrument & Valve Services technicians provided on-the-spot interpretation of scanned valves and were able to perform inline repairs on some of the valves requiring action, increasing efficiency in the maintenance process. Once repairs were completed, the valves were rescanned and the data was used for an updated graph of valve status.

Because the additional data provided by the FlowScanner enabled the refinery to plan more efficiently, it has also been able to reduce its inventory costs by decreasing the number of spare parts stocked.

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