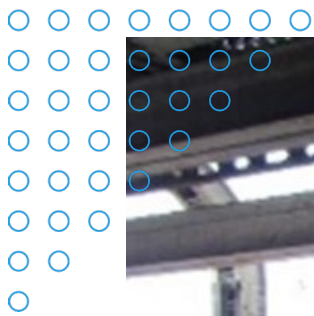


# Replace HP Hot Separator Control Valves

This Client was experiencing reliability issues with the level control valves associated with a high-pressure hot separator vessel. Despite being recently replaced, the main level control valve and its back-up continued to perform unreliably under the extreme service conditions. The Client engaged Rally to investigate options for replacing the primary letdown valve with a far more robust “Masoneilan” valve, which had been recommended to their project team by the unit licensor. The valves were in a congested area and piping changes were very complex.



# Replace HP Hot Separator Control Valves

Saskatchewan

Refining & Petrochemicals

\$250k TIC



## SCOPE OF WORK

The Client requested Rally to develop a feasibility study, exploring three potential valve replacement scenarios. Reconfigured piping and structural supports were modeled in significant detail, given the complexity of the system. This led to high confidence in the requested  $\pm 30\%$  cost estimate for each option. The extra up-front scoping effort was realized as a cost saving in the detailed engineering phase.

## DELIVERABLES

- Detailed critical stress analysis.
- Custom pipe supports and structural checks.
- 3D modeling to avoid clashes between the larger, heavier new valve and the existing equipment.
- Isometric piping drawings and model shots.
- Registered the pressure piping design modifications with provincial authorities on the Client's behalf.