

# Distillate Product Cooler Replacement

A new hydrodesulphurization (HDS) distillate product cooler was scheduled for installation on top of the existing pipe rack structure in a refinery's crude / vacuum unit. Rally provided detailed engineering services in support of several project design aspects.



# Distillate Product Cooler Replacement

Saskatchewan

Refining & Petrochemicals

\$5M TIC



## STRUCTURAL, MECHANICAL & PIPING

Rally evaluated the existing unit pipe rack structure to ensure it could adequately support the additional weight of the new cooler.

Rally also designed an elevated walkway to connect the crude/vacuum unit aerial coolers to the HDS unit aerial coolers. This walkway was integrated with the existing bridge that links the pipe rack structure between the operating units.

- The new cooler was equipped with 2 fans/bay and 25 hp motors.
- NPS 6 distillate supply and discharge lines were installed to and from the cooler.
- A new NPS 4 flow control valve station was also constructed.

## ELECTRICAL & INSTRUMENTATION

- New power and instrument cables.
- Modified the motor control center (MCC) for variable frequency drive (VFD) installation.
- Installed redundant temperature controls and new flow controller which interlocks with the distillate stripper level.