

Houston, Texas

# Refinery restores wash water pump systems with minimal downtime due to retro-fit pump barrel equipment

Summit ESP® pump replacement parts help repair wash water pump damage after storm with one-week lead time

## CHALLENGE

- Quickly restore wash water pump systems after harsh storm damage
- Find new pump barrel options for obsolete pumping equipment

## SOLUTION

- Summit ESP® pump modified to fit existing surface units

## RESULT

- Delivered new equipment with only 1-week lead time
- Successfully retrofit pump barrels on two competitor units
- Installed pump barrels as a direct drop-in replacement
- Avoided long period of non-productive time (NPT)
- Satisfied customer with overall solution and performance

## Overview

Due to a harsh winter storm that hit Texas, a refinery customer in the Houston area had wash water pump systems that failed due to the cold temperatures. Furthermore, the pump barrels on the main and back-up units had sustained significant damage and needed to be replaced as soon as possible. The legacy wash water pumps were older model competitor surface units, making it hard to source replacement pump barrels, as the original manufacturer discontinued making that component.



## CASE STUDY

### Drop-in replacement pump an exact fit

The customer reached out to Summit ESP® who was able to match the pump barrel with a slightly higher best efficiency point (BEP) stage, but with similar or overlapping flow, pressure, and the same outside diameter pump housing to fit the customer's existing surface units. The new pump barrel selection had a better head per stage, and as a result, the overall length was shorter, necessitating some adjustment on the existing tandem pump (two pump barrels in series) skid setup. To accommodate this, Summit ESP built a zero-stage pump barrel for each unit to make up the difference in length so that overall pump barrel length exactly matched the previous pumps. This made the installation a direct drop-in replacement operation.

### Quick turnaround time to restore production

Summit ESP provided pump barrels in one week's time that were a viable replacement for the competitor's equipment. This helped the customer avoid a long period of downtime that would have been required to plan, redesign, and restore production of these critical pieces of equipment in their refining process. It also demonstrated Summit ESP's capability to understand the issue, come up with an engineered solution, and deliver the product in a short period of time.

### Result

The refinery customer was very satisfied with Summit ESP and the performance of this project, helping them to maximize asset value without incurring excessive and costly NPT.

Summit ESP will be considered to perform additional work on these units for possible service and parts. The real critical win in this case is that Summit ESP can now be recognized as having pumps in a wash water refinery application.

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