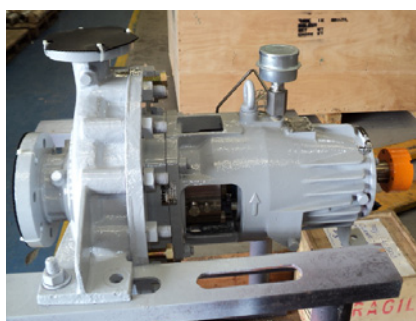


CASE STUDY

Re-rating: Changing the Operation, Keeping the Original Installation

The pump ZE 50-4401 (Overhung) manufactured in 1989 operates in one of the largest oil refineries in Latin America, pumping LPG in a gasoline stabilizer plant. The pump was operating outside its comfort zone due to changed process conditions over time. This caused reliability issues. Sulzer's engineering staff proposed an economically viable solution of re-rating by changing the duty point while keeping the original facilities.



Pump assembled in workshop after the retrofit

The challenge

Due to the oversized working conditions of the pump, it was necessary to restrict the discharge of the pump.

The pump operated very near the minimum flow and as a consequence, many problems in the bearings of the equipment and constant interventions for emergency repairs arose. The client needed an upgrade of this pump as a more economic alternative than buying a new pump.

The solution

The dimensional configuration of all equipment was kept and the hydraulic parts changed, the impeller replaced, and the volute adjusted to the new conditions.

Customer benefit

The equipment has been fully reviewed and partially re-engineered to achieve new operating conditions. Thanks to the fact that no modifications in field installation were required, the investment was minor. The pump features the same mounting setup in the plant. The solution was accepted by the customer, the project was executed, and tested on the Sulzer test bench, reaching all customer expectations.

Pump data

Old duty point:
 Flow: 94.5 m³/h @ head: 251 m
 New duty point:
 Flow: 31 m³/h @ head: 119 m

The Sulzer difference

With an innovative spirit, Sulzer offers differentiated solutions to its customers through its qualified and motivated team, with a mission of always delivering big benefits and less impact on capital.

Contact

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Applicable markets

Customer support services, HPI, oil and gas

Applicable products

Retrofit, re-rating

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