

# Centrifugal Pump Development

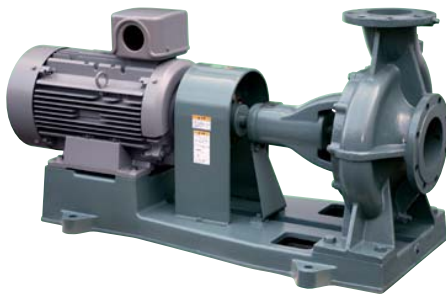
Case Study - Teral Inc.

SC/Tetra contributes to more efficient development process

## Centrifugal Pump

Fluid analysis combined with structural analysis, 3D CAD, 3D measurement and 3D printer lead to the development of high-value-added products.

**TERAL**



For Hot & Cold Water Circulation

For General Supply

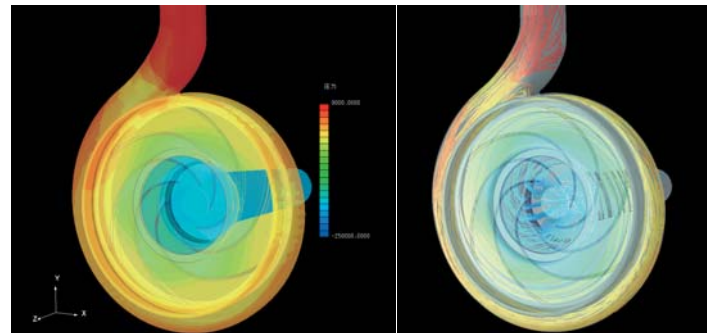
For Supplying Industrial & Sewage Water

## Simulation Model



Approx. 7.74 million elements  
Approx. 2.2 million nodes  
Steady-state analysis  
ALE for rotating and stationary regions

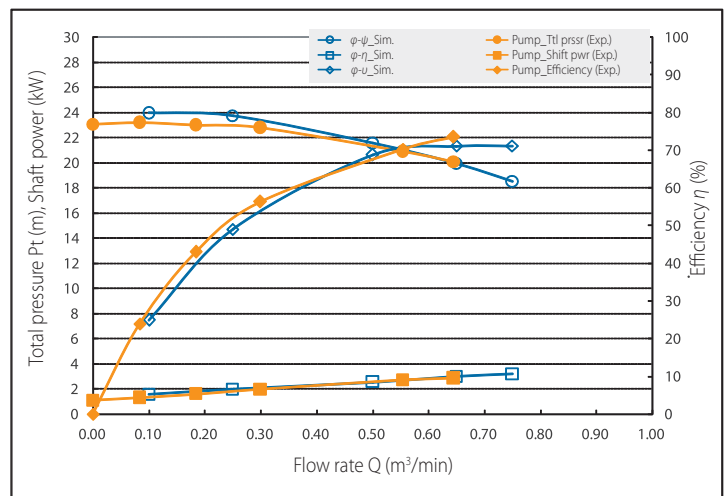
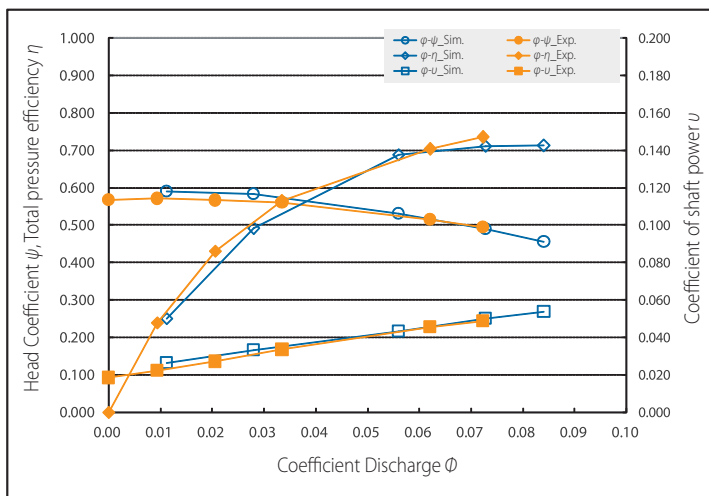
## Simulation Results



Flow patterns and pressure distribution can be examined visually for better understanding. Also, comparison of simulation results can assist in determining better designs before prototyping.

- Advanced Research, Designing & Development
- Responding to Sophisticated Needs
- Maintaining Quality Products

## Result Comparisons



Close correlation between simulation results & experimental results

## Customer Comments

SC/Tetra accelerates the pump development processes in areas such as performance evaluation and visualization of internal flow. This results in a reduction in development time (25-65 %) and cost. In addition, engineers can be actively involved in the evaluation of the simulation results regardless of experience or skill level.