

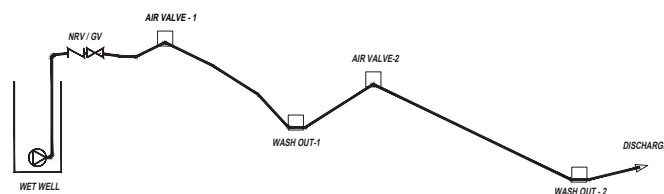
HYDRAULIC SURGE ANALYSIS

PUMP AND PIPING NETWORK



Computational modeling of your pumping system, along with expert analysis by xylem engineers will provide the details and recommendations for system start-up, shut-down and protection against waterhammer.

Water transporting pipe networks typically experiences a sudden pressure spike because of an abrupt change in velocity caused by valve opening/closing, pump start-up/shutdown. This phenomenon is known as a water hammer/surge, which is potent enough to burst any prominent system prematurely. Hence, Water Hammer Analysis (Hydraulic Surge Analysis) is preferred when designing a pumping system to simulate the hydraulic gradient and behaviour across piping networks; under the various boundary conditions. The possibility of equipment failure can be prevented by adopting various surge mitigation schemes.



The damage caused by water hammer by far exceeds the cost of preventive analysis and surge control measures.

Analysis scope includes:

Steady-State Hydraulic Analysis

- Hydraulic gradient
- Flow rate
- Pressure drop
- Equipment selection and sizing

Transient Surge Analysis

- Transient hydraulic response
- Operating and control philosophy
- Recommendation of various surge protection devices

For a technical consultation call: 0115 940 0111