

## # Pump Vibration Service Report

**\*\*Service Date:\*\*** January 25, 2024  
**\*\*Service Technician:\*\*** Emily Johnson  
**\*\*Customer Name:\*\*** ABC Industries Ltd.  
**\*\*Customer Address:\*\*** 456 Industrial Parkway, Industrial City, USA  
**\*\*Contact Information:\*\*** (555) 123-4567, emily.johnson@email.com  
**\*\*Pump Information:\*\***  
- **\*\*Pump Type:\*\*** Vertical Turbine Pump  
- **\*\*Pump Serial Number:\*\*** VTP-789012  
- **\*\*Pump Location:\*\*** Pump Station 2, ABC Industries Ltd.

### ## Service Details:

#### ### 1. Initial Assessment:

Upon arriving at the customer's facility, a thorough assessment of the pump with vibration issues was conducted to identify the underlying cause. Key observations include:

- The pump, identified as a Vertical Turbine Pump, was located in Pump Station 2 and was easily accessible for inspection.
- The pump's serial number VTP-789012 was confirmed.
- Visual inspection revealed abnormal vibrations, suspected to be caused by issues in the suction piping.
- Further examination revealed that the pump's suction piping insulation was inadequately installed, contributing to the vibration problem.

#### ### 2. Vibration Analysis:

A detailed vibration analysis was performed to quantify and diagnose the pump's vibration issue. Key measurements and findings are as follows:

- **\*\*Vibration Measurements:\*\*** Utilizing vibration sensors, measurements indicated vibration levels outside of acceptable parameters.
- **\*\*Frequency Analysis:\*\*** Frequency analysis identified resonance within the system, primarily caused by the insulation problem in the suction piping.

#### ### 3. Corrective Actions:

To address the vibration issue originating from the suction piping insulation, the following corrective actions were implemented:

- **\*\*Suction Piping Insulation Correction:\*\*** The improperly installed insulation was rectified to eliminate resonance issues. Correct insulation procedures were employed to minimize vibrations.

#### ### 4. Equipment Calibration and Testing:

Post-correction, the pump underwent recalibration to ensure proper alignment and functionality. Tests performed include:

- **\*\*Vibration Reassessment:\*\*** Subsequent vibration measurements confirmed a reduction in vibration levels to within acceptable limits.
- **\*\*Functional Test:\*\*** The pump was operated to validate that the vibration issue had been successfully resolved, and the pump was operating optimally.

#### ### 5. Documentation:

A comprehensive record of all service and repair activities was documented, including visual documentation, vibration analysis data, calibration records, and maintenance logs. This documentation will be provided to the customer for their records.

#### ### 6. Customer Feedback and Approval:

The customer was briefed on the service outcomes and given the opportunity to inspect the pump. Satisfactory results were communicated, and customer approval was secured.

#### ### 7. Recommendations:

In light of the assessment and service, the following recommendations were provided to the customer:

- Regular monitoring of vibration levels to identify potential issues at an early stage.
- Periodic inspection of the insulation system to ensure sustained proper installation and prevent vibration-related problems.

#### ### 8. Conclusion:

The pump's vibration issue, stemming from suction piping insulation concerns, has been successfully addressed. The customer expressed satisfaction with the service, and all pertinent documentation was updated to reflect the service details and customer approval.

#### ### 10. Service Technician Signature:

Technician Signature: Emily Johnson  
Date: January 25, 2024

