Service Categories

Diagnostic & Consulting Services

1. **Inspection**

   Pump's inspection provides the condition status of your pump. It is vital to know the pump's condition in order to reduce the risk of failure and additional costs by doing the maintenance and overhauls using the data collected through pump's inspection. Also, by knowing the condition of your pump, it gives an opportunity to you for modifications to reach optimized performance levels. We are your reliable partner to find the root cause of poorly performing pumping systems.

   - Inspection

     During a typical site inspection, we;
     - Confirm pump duty during normal operation and under process upset conditions (flow, head, speed, balance, line flows, etc.)
     - Record vibration parameters (both absolute and relative figures)
     - Collect data during the start-up and shutdown phases
     - Temperature measurement (bearings, cooling systems, seal flushes, etc.)
     - Check mechanical seals for leaks
     - Review operation of minimum flow valve or other control devices
     - Check for other external leaks and abnormal noises

   - Your key benefits are:
     - Knowledge of current pump condition without the need for a shutdown
     - Potential to extend pump operating time between scheduled maintenance periods

2. Pumping Solution Analysis & Recommendations

As one of the market's leading pump company, we provides a wide range of pump's services for standard pumping solutions. After a thorough inspection by our service team, we will come out with inspection report to inform our customer the root cause of their under-performing pumping systems and as for the solution, we provide some recommendations. We are well-known by our customer for our performance reliability and efficient solutions.

- Analysis and recommendations

  We prepare detailed reports covering the following:
  - Comparison of current operating conditions to the original design criteria
  - Estimation of recirculation losses of balance system wear (where applicable)
  - Recommendations for any changes in general operation (e.g. temperature limits)
  - Recommendations to existing maintenance procedures
  - Recommendations for any system or process changes
  - Recommendations for critical spare parts
  - Proposal for pump modifications (if applicable)

- Your key benefits are:
  - Recommendations for system and process optimization
  - Optimized spare parts stocking
  - Potential to upgrade the pump with latest technology and materials
  - Direct and indirect cost savings

3. On-site Monitoring

On-site monitoring provides the information required by pump users to manage their pumping system and to help them to make decisions on recommended modifications. The recommended modifications are to make sure their pump operates at optimum performance for current operating conditions. The information can then be used either as a standard performance to monitor or as a comparison for future changes in performance. Rather than relying on average recommended time intervals of maintenance, by using the data of on-going measurements of pump performance, the need for maintenance can be predicted. This makes the maintenance more reliable, providing earlier warnings when your pump has a change in operating conditions.

- Optimum performance assurance

  Pump users need to be assured their pump is operating at optimum performance. We provide monitoring and diagnostic services designed to deliver key benefits to end users:
  - Optimized energy consumption
  - Pump performance matched to process needs
  - Extended or eliminated scheduled service intervals
  - Minimize the risk of emergency shutdowns due to pump failures

- Conversion of data to knowledge

  When visiting a customer site, experienced service team will typically review the following parameters:
  - Flow
  - Dynamic head
  - Power absorbed
  - Efficiency
  - Net Positive Suction Head (NPSH) available/required
  - Temperatures
  - Vibration levels
  - Piping interfaces
  - Bearing support and lubrication
  - Seal arrangement including piping arrangements

- Remove under performance

  Knowing the performance of all your pumps helps you to generate initial step to making an action plan in improving under-performing pumping system. Once the root cause has been identified, it can be analyze and an action can be made to overcome the problem. Pumping solution recommendations are vital in correcting and modifying the pumping system which will ensure the pump operates at optimum performance to suit any changes of the operating conditions.

Maintenance & Support Services

1. **Preventive Maintenance**

   Preventive maintenance is maintenance that is performed according to the schedule planned on pump purposely to lessen the possibility of its failure. Preventive maintenance is performed while the pump is still working, so that it does not break down unexpectedly. By constantly monitoring the condition of the pump, the needs for maintenance can be predicted which we used it to schedule the preventive maintenance for your pump. Preventive maintenance helps you to save your cost by undertaking work only when it is needed and also by avoiding you from spending higher cost for major repairing work. When increased maintenance is indicated, we take steps to modify pumping system to improve working lifespan and avoid failures. Our service team initially will start with inspection to identified any abnormal

   - During a preventive maintenance, typically we;
     - Inspect the pump (Please refer to Inspection for list of typical inspection job done by us)
     - Replace wear and tear parts according to operation and maintenance procedures
     - Fix any abnormal parts identified during the inspection

2. **Pump Repairing**

   Any pumps repairing services provided to our customers comes with the assurance that when their pump is re-install to the system, they will receive the maximum value from the repair process. You can be confident your pumps can perform as expected. Pump repair can be perform at workshop or for basic/minor repairs, on site at your location. Our service team will start to repair the pump once a thorough inspection is completed.

   - When repairing a pump, the following points are addressed:
     - Overall condition
     - Detailed examination of all critical parts and their condition
     - List of parts suitable for re-use or refurbishment
     - List of parts to be replaced
     - Estimate of time and cost of work needed

3. **On-site Installation**

   Pumps are one of major equipment in many industrial processes, incorrect pump installation procedures can causing for system shutdowns and emergency repairs. We offer on-site installation for your pumps. We have experience undertaking a range of pump installations for both new and existing pumps. Even your pump is not originally from our warehouse, we are glad to help you to install it to your pumping system. Our team are experts when it comes to pump installation at site. When the installation procedures is being carried out correctly, it helps in ensuring the pump's lifetime, system running smoothly and optimum performance during the operating time.

4. **Laser Alignment**

   Increasing in alignment performance, helps in increasing the pump performance. With the focus on improving alignment practices, the shaft laser alignment tool, is one of the industry's best value alignment solutions. We offer laser alignment for your pumps. The laser alignment comes with enhanced measuring system as a solution for achieving accurate shaft alignments. With two wireless measurement units, large sized detectors and powerful lasers, the instrument performs precise measurements in even the most challenging conditions. The ergonomic display unit with intuitive touch screen navigation makes your shaft alignments fast and easy. Shaft alignment is recommended for pumps industry, as it enables the pump uptime to be significantly improved and maintenance costs to be reduced. The simplicity of the laser-alignment provides greater confidence for the performance of alignment tasks on all types of horizontal pumps.

5. Electrical Installation & Repair

Optimum performance, efficiency and reliability are key to your success. Correct installation procedures of electrical equipment for your pumping system are also vital in ensuring the pump can deliver optimum performance and efficiency without any possibilities for downtime. With a focus on continuous improvement, we provide electrical installation and repairing services to you as a complete solutions that will enhance efficiency, performance and reliability of your pumping equipment. We offer you to take our electrical installation or repairing services to ensure your pump can sustain in any pumping conditions. Our electrical services can be included with other services such as preventive maintenance, if necessary. After thorough inspection in the pumping system, if there is any abnormal features that related to the electrical parts, our electrical team are ready to serve your pumping system.

- When installing a pump, our electrical team are able to:
  - Install wiring for the pumping system
  - Install control panel
  - Install sensor rod
  - Provide T&C (Testing & Commissioning)