ARS MOTOR&GENERATOR SERVICE

ARS Motor Service has been established to create engineering solutions for customers who need site service for their rotating machines in their facilities. ARS can find satisfactory tailor made solutions according to customers’ need and conditions as well.

Our mission:
ARS support customers to carry out their reactive, predictive and proactive maintenance or repair in a manner of cost effective way. ARS can supply service to the customers by avoiding transporting of their machines to the workshops because ARS can convert customers’ site to a workshop. As a gain of this way is to save money and time as well.

Our vision:
ARS is willing to be a well-known supplier for the customers who focus on reliable, fast and convenient long-term solution providers.

Team:
Team members of ARS are experienced and skilled people who used to work for similar jobs more than tens of years. ARS technical people are consisted of engineers and technicians who are able manage site services for rotating machines according to international standards.

Work scope:
1. Consultant duties and technical trainings for rotating machines
2. Commissioning of rotating machines
3. Troubleshot studies
4. Motors and generators electrical and mechanical inspections
5. Vibration measurements and analysis
6. Coupling alignment check and correction
7. Rebalancing (1 or 2 planes) of turbo generators at site
8. Major site overhauls of rotating machines
   a. Dismantling
   b. Inspection of bearings and other mechanical part
   c. Inspection of windings and other winding accessories
   d. Replacement of the spare parts
   e. Cleaning
   f. Drying out
   g. Varnishing
   h. Assembling
   i. Start up
   j. Online checks
   k. Reporting all findings and comments
ARS is responsible for vibration analyser and balancing kit sales, installation of the system and training as being an official distributor of Erbessd Instruments products in Turkey

**Predictive Analysis Tools**

DigivibeMX M30 allows the user to perform predictive analysis of any machine located in the Machines Database.

- Machines database and routes
- + 20,000 bearings database with dimensions and working speed
- Interpretation and diagnostic tools
- Cascade spectra

**FFT Spectra**

Most of spectral tools in DigivibeMX M30 are based on the FFT algorithm, capable of measuring low frequencies (1 Hz) up to 10 kHz. The accuracy of the spectrum varies according to the needs, reaching many million of resolution lines.

- Million points spectrum resolution
- Spectrogram
- 3D spectra

**Advanced Analysis Functions**

The advanced vibration analysis allows the diagnose of complex failures, relation between points, vibration modes and substrate analysis.

- Crest Factor
- BODE Diagram
- RPM vs Time
- Amplitude vs Time
- Bump Test
Online and offline PD (partial discharge) air gap flux online measurement systems sales and commissioning support
Partial Discharge monitoring

End Winding PD  Tracking, End Winding  Bar to Bar PD  Slot Exit PD

PD Coupler Connection

PD Output: BNC connector
Shaft voltage monitoring

Air gap flux monitoring
Field services for mill motors at cement plant / Turkmenistan
Fuel oil power plant generator inspections and maintenance / Iraq
Fuel oil power plant generator winding local repair and retrofit service / Iraq
Steam turbine combine cycle power plant ID fan site balance check and 2-plane rebalancing / Türkiye
Fuel oil power plant generator inspections and maintenance / Mauritania
Fuel oil power plant generator major overhaul / Pakistan
Fuel oil power plant generator major overhaul / Pakistan

- Applying semi-conductance / stress grading varnish (Nov Roll 8001) was applied to end winding area to complete partial discharge protection mechanism.
Hydroelectric power plant winding inspections and rotor site balancing check and rebalancing /Afghanistan
Medium size hydro power plant commissioning / Türkiye
Medium size hydro power plant commissioning / Türkiye
Pump motor inspections, efficiency checks and commissioning service / Türkiye
Pump motor inspections, dismantling and assembling including start up service / Türkiye
Mill motor site inspection at iron mining / Türkiye
Wind machine vibration measurement, balance checks and rebalancing service / Türkiye
Motors and generators training at a fertilizer plant / Pakistan

Training Scope;

- Rotating machines general definitions
- Deterioration mechanism an Inspections
- Maintenance scope and periods
- Vibration and alignment
- Rewinding and reverse engineering
- Practical vibration measurements and analysis
- Practical alignment and analysis