

# Condition Monitoring Services



reliability always prospects



## About us:

RotoMatrix is a professional company intend to provide highest standard of services on reliability and condition monitoring techniques irrespective of any particular industrial sector.

We are young generation hierarchy energized with full of new ideas continuously striving to enable rotating machines reliability in to new dimensions. Apparently, we have a set of dedicated and qualified engineers all are certainly experienced and trained in such a way that to progress our new thoughts in existing platforms.

Our objective is to replicate our enriched experience with technologies in to multiple facets of benefits to the needy industries.

## Vision:

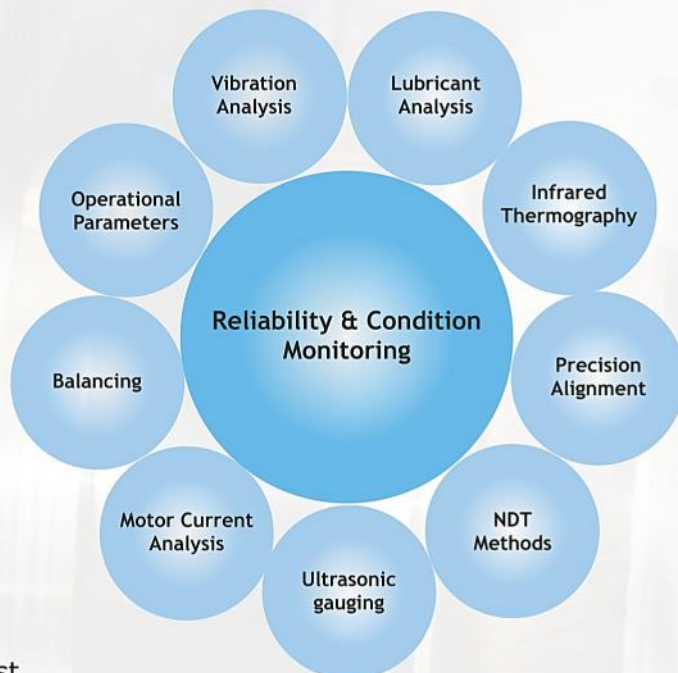
To be the most trusted and preferred service partner in various segments of industries and professionals in the developing economy.

## Mission:

To enable industries to utilize reliability services to add value to their rotary assets to obtain optimum cost effective performance.

## We Provide services on

- Vibration Analysis
- Infrared Thermography
- Shaft Alignment
- In-situ Rotor Balancing
- Remote Diagnostics 24x7 Support
- Root Cause Failure Analysis
- PdM Initiative Services
- PdM Optimization Services
- Baseline Measurements Services
- Pre -Turnaround/outage Services
- Post -Turnaround/outage Services
- On Call Services
- Annual Maintenance Contracts
- Vibration and Noise Acceptance Test
- Training on Vibration Analysis & Balancing



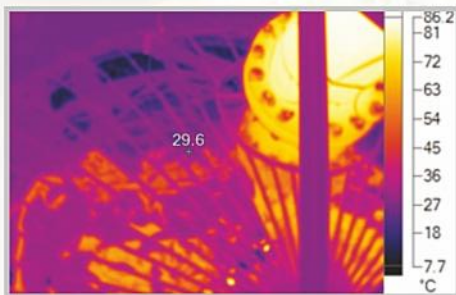
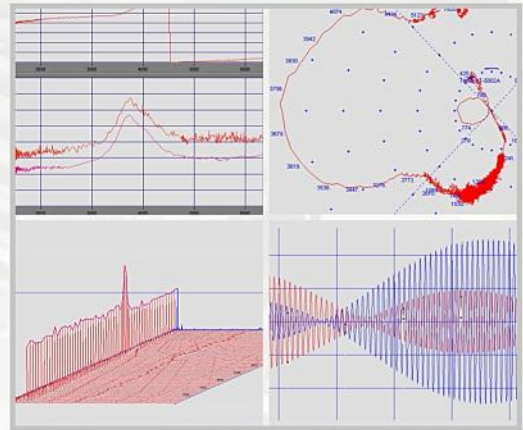


## Vibration Analysis:

Vibration Analysis is the most recognized key method in condition monitoring which brings out early detection of developing problems in rotating machineries such as Rotor imbalance, Looseness, Misalignment, Bearing defects, Gear defects, Flow induced problem and so on.

The objective is to recognize machine health condition in sufficient time to take remedial action before certain defects in the machine parts significantly decrease equipment operation or fail completely, thereby establishing a cost effective maintenance plan.

RotoMatrix engineers will perform both offline and online data collection and analysis. Furthermore, we can extend our support by reviewing existing online transient and continuous monitoring data and will issue detailed reports.



## Infrared Thermography:

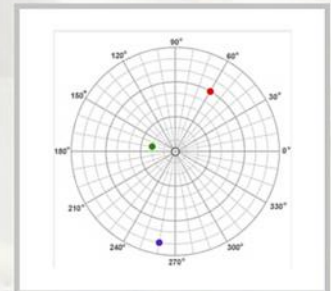
Infrared thermography is most versatile and instant results technique in condition monitoring to identify temperature gradients. This method is most popular usage in electrical and mechanical systems which identifies overloaded circuits, unbalanced phases, high resistance joints etc., and for mechanical problems such as bearing wears, furnace refractory lining breakdowns, steam leaks, misalignments, lube oil inadequacy etc.,

RotoMatrix Engineers will perform onsite thermal imaging survey and provide detailed reports on observations and findings.

## In-situ Rotor Balancing:

Machine causes excessive vibrations due to presence of excessive unbalance mass in the rotor, this can be corrected in-situ at service running speed. This will reduce vibration levels within the acceptable level and ensures the machine is reliably available for operations.

RotoMatrix Engineers will pre-assess the machine condition and subsequently will perform in-situ balancing of rotors within manufacturers' guidelines and ISO1940/1 tolerances.



## Shaft Alignment:

Misaligned shaft in the rotating machinery will cause undesirable reaction forces that adversely affects associated components and influences increased load, reduction of bearing life, increased wear of seals/bearings/ Couplings, increased vibrations, increased noise and increased energy consumption. Eventually, leads into premature failure and incurs financial loss due to significant production loss and components damages.

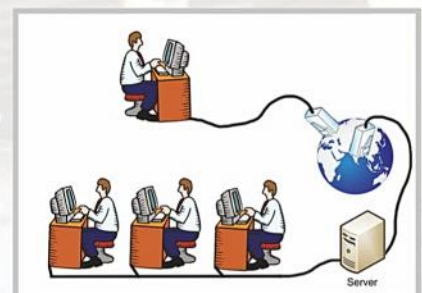
RotoMatrix Engineers will perform coupling alignment services for both horizontally and vertically mounted rotating machines.

## Remote Diagnostics Services:

Many industries applies periodic/continuous monitoring and analysis of vibration data but are not able to achieve their real benefits due to manpower shortages and insufficient expertise which obviously leads inadequate diagnostics of equipment problems and just near misses impending expensive failures.

Today's technology given us the way that the internet based systems enables us to review and analyze vibration datas remotely for both online and offline measurements and successfully gives optimum results

RotoMatrix remote diagnostic center (RDC) is now active with capable experienced engineers who can provide online support round the clock 24x7.





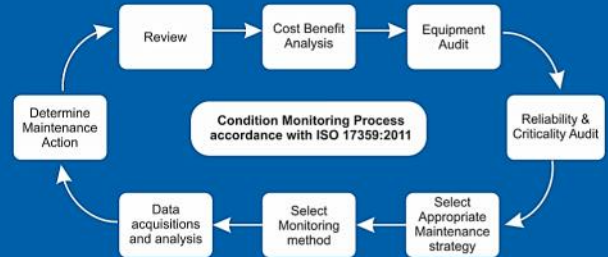
# Condition Monitoring

Condition monitoring is a continuous process of machine health assessment to prevent breakdowns by adopting various effective techniques such as vibration analysis, Lubrication Analysis, Thermography study, Motor Current Analysis and operational parameters.

Condition monitoring concept is well proven preventive maintenance approach to early detect machine components developing problems that leads to unexpected failures before the next scheduled maintenance outage saved millions of rupees/dollars in secondary damage, production loss, unnecessary maintenance which has been accepted worldwide for all type of machineries.

Implementation of an effective condition monitoring strategy will strongly help industries to prevent unplanned, costly equipment repairs and downtime. ISO 17359:2011 gives general guidelines for condition monitoring and diagnostics of machines, which procedural and strict implementations apparently works well with realistic benefits.

**Condition monitoring benefit proves by strict compliance of its process chain.**



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