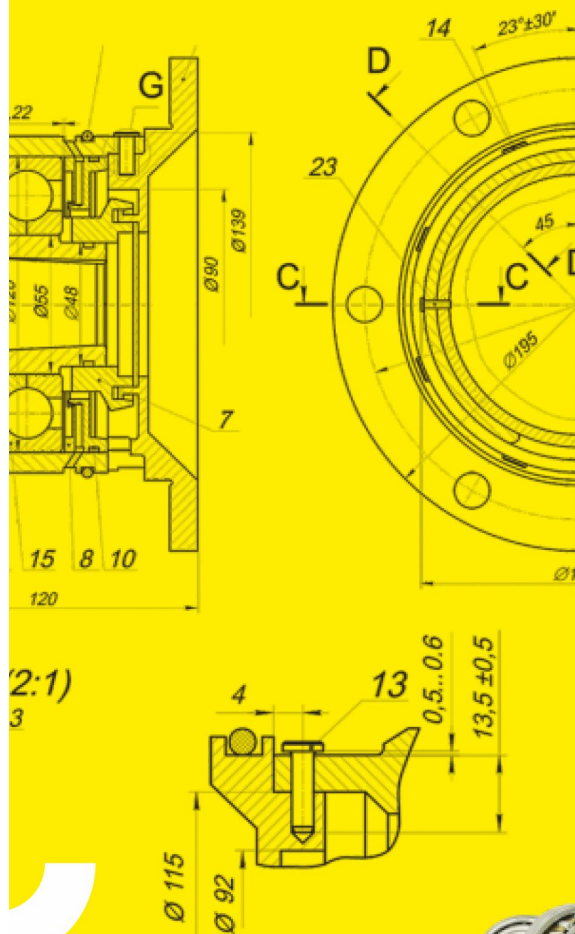


CELEBRATING
75
YEARS



CK BIRLA GROUP

nbc
flexible solutions



ROLLING BEARINGS

Condition Monitoring



2 WHEELERS



3 WHEELERS



4 WHEELERS



TRACTORS



LCV, HCV



INDUSTRIES



RAILWAYS



AEROSPACE



WINNER
DOMING GRAND PRIZE

nbc
flexible solutions

CATALOGUE/TC-106, 01/2024

This version supersedes all previously published versions. All the bearing mentioned in this catalogue are manufactured with normal tolerance class. We can, however, supply other class bearing against specific requirement.

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Founded in 1946, NBC is India's first bearings manufacturer and the last word in quality and durability. In 2020, the company acquired leading European manufacturer, Kinex Bearings to further boost its expertise.

75 years since its beginning, NBC remains India's leading bearings manufacturer and exporter. NBC is also the world's only bearings manufacturer to receive the prestigious Deming Grand Prize for Total Quality Management.



Products from NBC

Since the challenges faced by industry are many, NBC offers a diverse range of exceptional bearings. NBC bearings are available in sizes from 04 mm bore to 2000 mm outer diameter.



* Products with special features like high temperature application, special heat treatment, coated roller/faces and cage options are also available across product range.

11.5 Sensor Integrated Bearings (SIB)

Sensor Integrated Bearings (SIB) are mechatronic machine components that feature a bearing and a sensor packaged together

Parameter	Purpose of Measurement
Speed, Direction, Acceleration	Signature of the driving shaft of application (e.g., EV, wheel, control, etc.)
Temperature	Bearing & vicinity measurement for criticality, Maintenance, etc.
Vibration	Condition monitoring, prognostic, Maintenance, etc.
Load	Actual operating condition and design validation

Application:

- Critical rotating applications like AC motors and Industrial machinery
- On-board Condition Monitoring, Control algorithms & Fault Diagnosis

Benefits:

- Compact & Integrated solutions resulting in space and cost-saving
- Facilitates Accurate & reliable data acquisition in real time environment
- Durable & rugged for dynamic service requirements



12 Condition Monitoring

Condition Monitoring Services

Condition Monitoring is the potential technique of predicting the failures and improving assets reliability. Today's competitive market demands qualitative products, with zero defects. Therefore optimal productivity and smooth processes are only possible when machines operate within vibration tolerances.

Uncontrolled vibrations create undesirable behavior in machinery, leading to catastrophic failures. Condition monitoring leads to predict remaining useful life of assets and improves its reliability. It allows to use exact permissible life of assets.

To maintain healthy conditions of machine and predicting its failure is our business. We provide intelligent solutions of condition monitoring in order to improve assets reliability. Our expertise in various streams of condition monitoring helps industries to maintain their assets failure free.

We provide smart solutions to industries through

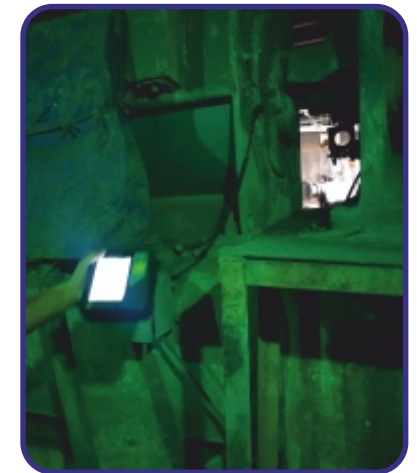
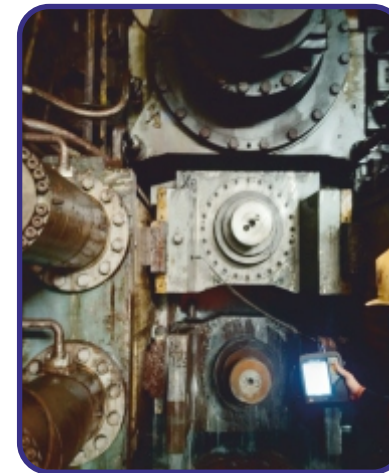
- Vibration Analysis & Fault Diagnosis
- Laser Alignment
- In-Situ Dynamic Balancing
- Thermography



Vibration Analysis & Fault Diagnosis

Vibration Signature analysis is the process by which intelligent information is extracted about machinery condition from vibration data during machine operation. We perform fault diagnosis based upon vibration signature and predict various machinery faults.

Our expertise in vibration analysis and fault diagnosis provides intelligent solutions for protecting machinery from catastrophic failures.



Laser Alignment

Alignment practices are often required to protect equipment from premature failures. Misaligned condition of assets often leads to more power consumption, severe vibration levels, and premature bearing failures.

Our expertise in laser alignment offers alignment solutions to industries. We offer field laser alignment, which makes the alignment process fast and accurate by avoiding trial & error methods.

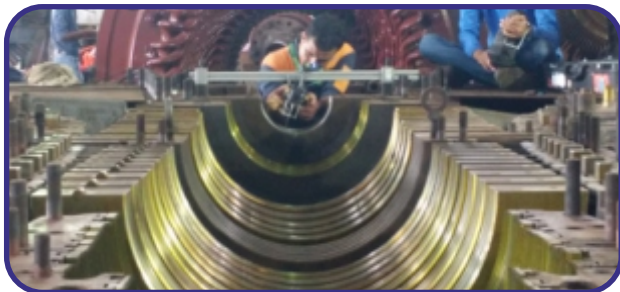
We perform laser alignment for shaft in coupled & Un-coupled condition, torsion shaft alignment, ID&FD fan alignment, cooling tower fan shaft alignment, wind mill alignment, cardon shaft alignment, soft foot correction and thermal growth compensation.



In-Situ Dynamic Balancing

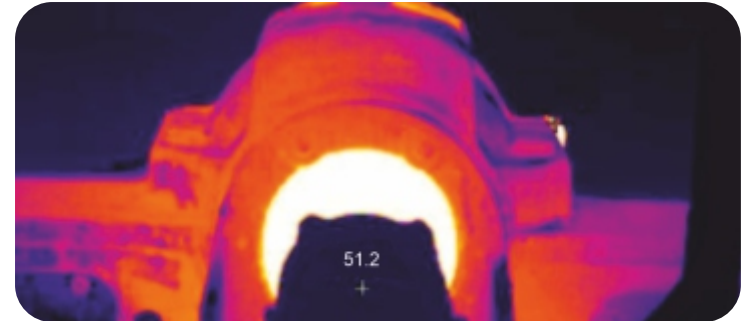
Unbalance Condition of machine is one of the most common contributors to vibrations in rotating machines. If unbalance remains uncorrected, it may lead to severe vibration problems, premature bearing failures, low performance of machines than expected, and more power consumptions.

We offer highest balancing grade by measuring phase very precisely using latest FFT data collector and laser based optical phase reference.



Thermography

Infrared thermography is a technique that produces a visible graph or a thermographic image of thermal energy radiated by objects.



Thermography often required to detect hot and cold spot, condition monitoring of insulation lining of boiler, steam pipeline and hot air ducts. Detection of thermal abnormalities are also performed using thermography.

We offer thermography services for all critical equipment's

A complete smart solution to protect critical assets from failures through condition monitoring is our prime objective. High end equipment's with advanced method of analysis is the key differentiating element of our service.