



# Baseline Machinery Audits

## Solution Overview

Baseline audits set the reference point for all subsequent analysis. GE Measurement and Control engineers will analyze the available vibration data and correlate with other machinery measurements and process data/conditions available in System 1\* to assess initial machinery condition and behavior. The Measurement & Control engineers will determine, if any, machine faults exist, will establish severity based on available data, and provide recommendations for remedial action.

The faults that will be investigated (depending on machine type and design) include, but are not limited to, the following:

- High synchronous vibration
- Shaft bow
- Unbalance
- Misalignment
- Fluid induced instability
- Rub
- High runout

## Baseline Audit

The following data that reviewed as standard, during the baseline audit:

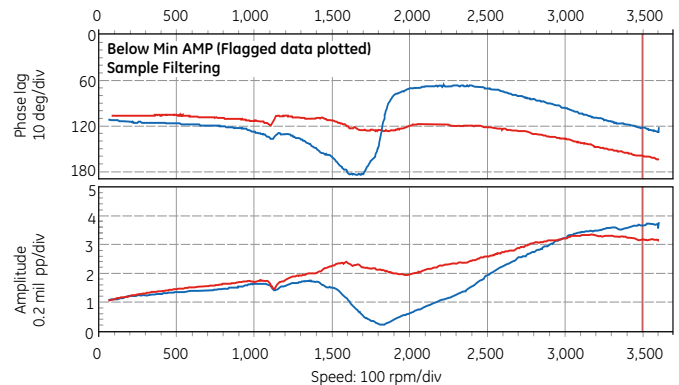
- Direct amplitude trend plots
- 1X amplitude and phase trend plots (where applicable)
- Gap voltage trend plots (where applicable)
- Orbit and waveform plots (where applicable)
- Spectrum and waterfall plots

Please contact us for detailed information and quotes:

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Example Baseline Plot

- Process data and performance calculations (where applicable)
- Transient data captured during startup and/or shutdown in various plot formats (bode, polar, cascade, shaft centerline)
- Historical machine information

## Baseline Audit Report

The baseline audit report will document the initial machine condition using the standard steady state (such as spectrum, orbit/timebase, shaft centerline) and transient response plots (bode, polar and waterfall). Current direct, 1X amplitude and 1X phase vibration (for points with assigned and valid Keyphasor\*) will be presented in a table together with any process data available in System 1\*.

Conclusions and recommendations detailing observed machinery and/or instrument related anomalies will be provided. The results will be provided to the customer and added to the problem resolution file, located in the web portal document database. Baseline audit reports will be stored in the web portal and can be accessed easily by entering machine name or document type in the Report Management search field.

## Value

Documented Machine Baseline – Baseline audits set the reference point that can be referred to during any subsequent audits/analysis of machine condition change.

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