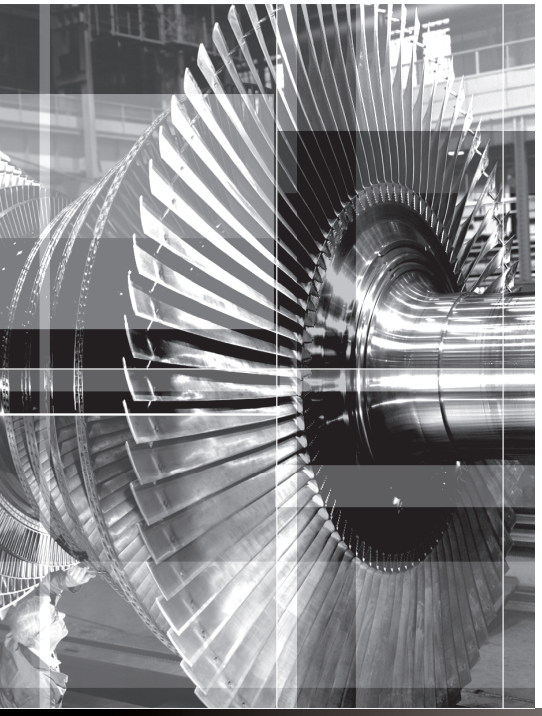
Data Physics Corporation

High Performance Test & Measurement Solutions
for Noise & Vibration Applications

Powerful Portable Analysis

SignalCalc® Turbo



Based on Quattro:
2 – 4 measurement channels
1 tachometer input
Ultra portable

Based on Abacus:
4 – 32 measurement channels per chassis
2 – 8 tachometer channels per chassis
Unlimited expandability

SignalCalc
Dynamic
Signal
Analyzers

Turbomachinery Vibration Analyzer

powered by ABACUS

Data Physics

SignalCalc Turbo is the turbomachinery vibration analyzer that delivers top-tier machinery diagnostics capability in a straightforward, easy-to-use package. Designed with critical input from highly experienced turbomachinery analysis professionals, SignalCalc Turbo is well-suited for vibration analysis of fluid-film bearing machines in the factory test environment and on the machine deck.

A must-have tool for rotating machinery experts and consultants

Rotating machinery experts in different industries share one common need - analysis solutions that help them get the critical machinery diagnostics results they need quickly.

Industries

- Power Generation
- Oil and Gas
- Pulp and Paper
- Aerospace
- Process Facilities
- Turbomachinery Manufacturing

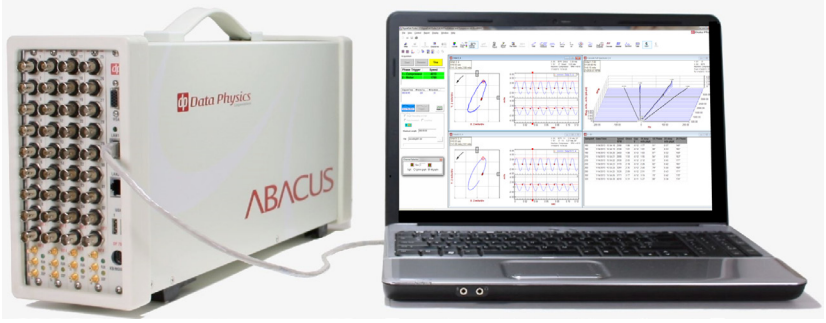
Applications

- Startup support
- Machinery troubleshooting
- Factory acceptance testing
- Service contracts
- Research and development
- Remote monitoring
- Rotor balancing
- Rotor dynamics validation

Users

- Independent consultants
- Turbine engineers
- Rotating machinery specialists
- Site reliability personnel
- Test cell managers
- Field services
- Design engineers

The new standard for portable turbomachinery vibration analysis



SignalCalc Turbo

Industry-leading benefits

Features and performance are what set Data Physics apart - without compromising ease-of-use. Leveraging Data Physics' legacy with dynamic signal analysis, SignalCalc Turbo users enjoy a combination of benefits that lead the industry:

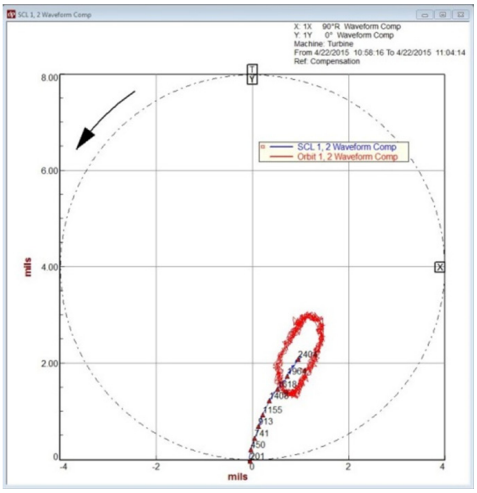
- **Efficient setup and analysis** – Create a new project and begin analyzing data within minutes. The intuitive Setup interface streamlines configuration of transducer and measurement parameters. Get to results quickly with convenient default graph settings and handy display tools.
- **Flexible configuration** – Multiple types of dynamic and static transducers are supported, with ICP transducer coupling available on all measurement channels.
- **Superior signal processing** – Exceptional 120 dB to 150 dB dynamic range and <0.5 degree phase accuracy to 40 kHz.
- **Easy data comparison** – Select multiple channels and data sources from both live and historical projects for graph overlays.
- **Streamlined reporting** – Create a custom graph queue and export multiple graphs to a report document with a single click.
- **Simplified collaboration** – Exchange of data for remote analysis and collaboration is made easy with unlimited view-only software.
- **In-house Calibration** – With optional calibration software and a traceable DVM, hardware can be calibrated in-house, removing the hassle of shipping and saving time out of service.
- **Expandable application coverage** – Add analysis capabilities such as transfer function for impact hammer testing, without requiring additional hardware. Data Physics software is compatible with ME'scope for 3D modal animations.
- **Modular hardware** – SignalCalc Turbo on Abacus can be configured with 1 to 4 modules of 8 measurement channels and 2 tachometer channels each. When more than 32 measurement channels are needed, multiple Abacus chassis are easily networked together.

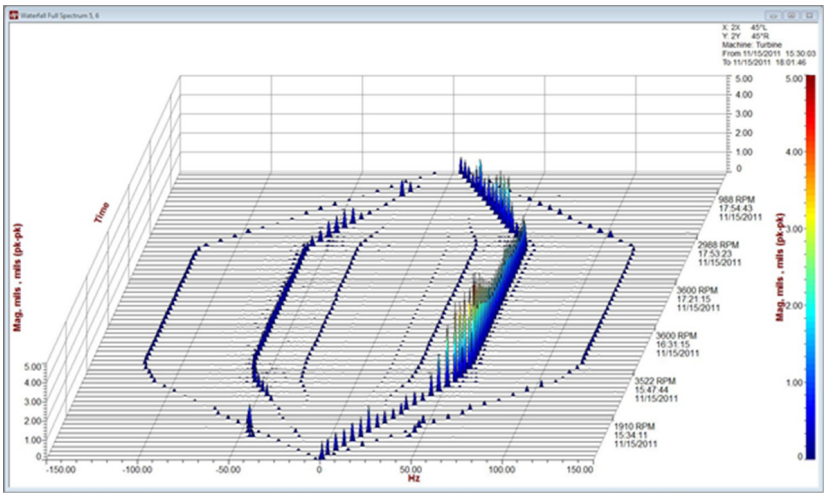
Data Physics

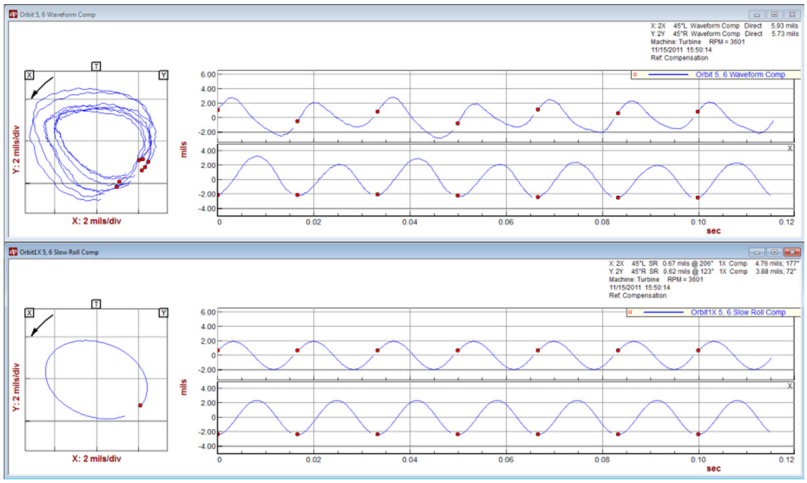
Advanced Portable Machinery Diagnostics

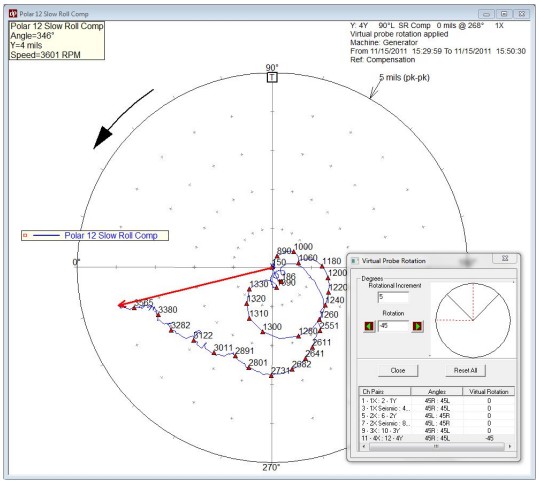
Comprehensive Measurements for Fluid-Film Bearing Machines

The most powerful measurements defining shaft relative motion and radial position are derived from pairs of proximity probe displacement transducers placed orthogonally at each bearing location. For diagnostics of misalignment and other machinery malfunctions, SignalCalc Turbo provides the necessary measurement and graphical tools to display shaft orbit and centerline position overlays, full spectrums, orbit timebase, and virtually rotated vector data from each proximity probe pair.









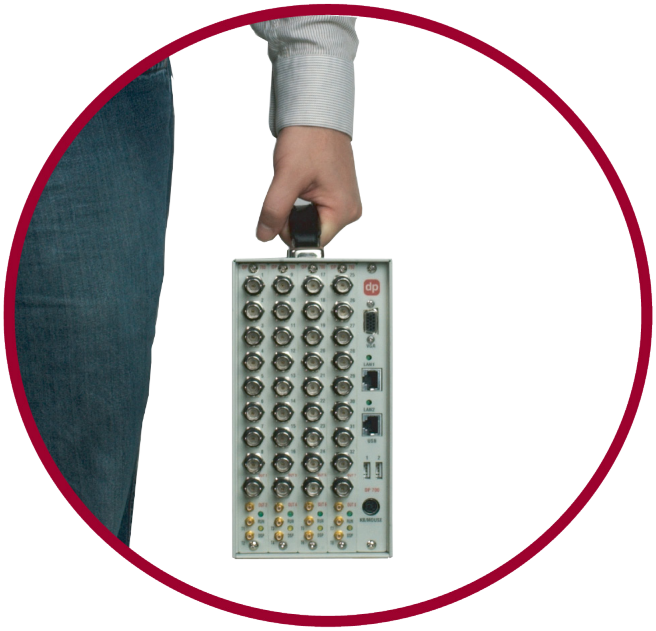
SignalCalc® Turbo

A full-featured diagnostic instrument for rotating machinery

Standard Features

- Up to 6 nX tracking filters
- Two fixed bandpass filters
- Integration and differentiation
- Slow Roll and full waveform compensation
- Automated event-based triggering
- Plot Types

  Orbit
  Orbit + Timebase
  DC Orbits
  Time Trend
  X-Y
  Polar
  Bode
  Shaft Centerline
  Cascade
  Waterfall
  Spectrum
  Tables
  Default and Custom Layouts



- Live and historical overlays
- Combine runs
- Shaft absolute vibration
- Rotor unbalance response computation
- Virtual probe rotation

Optional Features

- Integrated disk recording and playback analysis
- Software alarms with external relay output interface
- Live data export
- Self-calibration software

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ISO 9001:2008 certified

Established in 1984, Data Physics is a worldwide leader in high performance solutions for noise and vibration testing. Data Physics manufactures hardware and software with its full line of SignalCalc Dynamic Signal Analyzers, SignalStar Vibration Control Systems, SignalForce Electrodynamic Shakers and SignalSound High Intensity Acoustic Systems. Over 5000 Data Physics systems are installed worldwide at all leading Automotive, Aerospace, Military & Defense, Industrial, Consumer Electronics Manufacturers and Educational Institutions.

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