SDT Ultrasound Solutions

Industry Listens To Us










Predictive Maintenance for the Masses

SDTHearMore.com

How We Can Help

SDT provides ultrasound solutions that give our customers greater understanding about the health of their factory. We help them predict failures, control energy costs, and improve product quality while contributing to the overall uptime of their assets.

Where We Can Help

Ultrasound inspection has more applications than any other condition monitoring technology. Dollar for dollar it is the most versatile instrument in your PdM tool box.

- Mining
- Power Generation
- Oil and Gas
- Automotive
- Manufacturing
- Pulp and Paper
- Textile
- Water / Wastewater
- Foundries
- Shipping
- Cement
- Steel Industry
- Property Maintenance
- Farming and Food Processing
- Aerospace
- Military
- Chemical Processing
- Refineries

SDT270

What Industry Listens To

- **Measure Ultrasound, Vibration, RPM and Temperature in one box**
- Powerful Ultrasound for PdM Professionals
- Two Channel Inputs for sensors and accessories
- 20dB more sensitive
- Record clear, accurate, comparable ultrasound wave files
- Upgradeable firmware to flexibly grow with your programme
- Remote support and training

ATEX versions of the SDT270 and select sensors and accessories are available for potentially explosive atmospheres.

Recognized by CSA.

Ultranalysis Suite Software

Powerful software to manage intelligent hardware

Ultranalysis Suite is the most powerful ultrasound software ever written for PdM and Reliability Managers and has revolutionized the way we use ultrasound. Only UAS gives ultrasound inspectors the full power to create, collect, manage, and analyse their critical assets. With UAS collect and manage your Ultrasound, Temperature, RPM, and Vibration data in one software program.

- Catalogue and manage your assets in a tree structured database
- Establish baselines and create custom alarms to monitor your assets
- Perform static data trending and analyse dynamic data
- Available as a standalone or network application

Ultrasound Training

We take training seriously... and you should too.

Training is the cornerstone of an effective and enduring ultrasound inspection programme. Investing in implementation training is an essential first step to establishing ultrasound as a pillar of your Condition Based Monitoring initiative.

SDT's training programs were developed by the world's leading ultrasound minds. As a global leader in ultrasound technology we understand the challenges inspectors face in applying instrument to application. Our vision to create a network of world class ultrasound inspectors is being realized every day. Our versatile and experienced trainers are passionate about teaching and eager to help you reach your ultrasound goals.

Why Invest in Training?

Companies that invest in training enjoy a higher level of interest and participation across more departments while implementing inspections for more applications. Not only do the programmes endure, but the return on investment is almost immediate.

Compressed Air and Vacuum Leaks

Compressed air is expensive to produce yet 35-40% of demand is wasted by leaks. With the SDT270 you can find all your leaks quickly and safely so you can save money while lowering your carbon footprint.

Tightness Testing

Everything leaks. The SDT270 finds leaks in cars, buses, clean rooms, shipping containers, hatch covers, rail cars, hospital clean rooms, refrigeration units, zero oxygen storage facilities, and building envelopes – anywhere tightness integrity is demanded.

Low Speed Bearings

Many of your processes use large machines that rotate at low speeds. It can be difficult to monitor failure stages of low speed bearings with vibration analysis. The SDT270 is the perfect companion to vibration analysis, capturing dynamic sound files to perform failure mode analysis in the Time Domain using SDT's Ultranalysis Suite Software (UAS).

Bearings - Acoustic Vibration Monitoring (AVM™)

Your production depends on healthy rotating assets. You can monitor the condition of your plant's machinery with the SDT270. Trend and analyze ultrasound, vibration, temperature, and RPM. The SDT270 and UAS alert you when things transition from good to bad.

Steam Systems

Working steam traps keep your steam system pure, safe, and energy efficient. The SDT270 delivers ultrasound and temperature data so you can identify all your failed traps and keep your steam system productive and healthy.

Pump Cavitation

Cavitation causes inefficiency and catastrophic damage to pump systems. Your pumps cannot build sufficient head resulting in lowered capacity and shortened PF Curve. Extending the lifespan of your pumps is so easy with the SDT270 and RS1 Contact Sensor.

Electrical Faults

Partial discharge is a constant threat to your safety, and the health of your electrical systems. The SDT270 reveals electrical fault conditions in metal clad switchgear, substations, and overhead transmission and distribution lines. Use SDT and listen before you look.

Reciprocating Compressors

Reciprocating compressor failures can cost millions of dollars in repairs and downtime. The SDT270 identifies fault conditions earlier than any other technology providing a large window to predict expensive downtime and inefficient operation.

Acoustic Lubrication

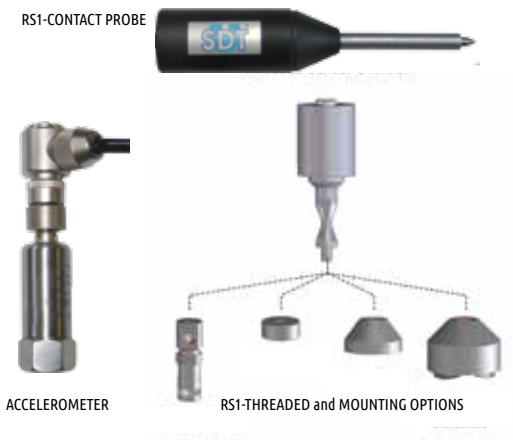
Incorrect lubrication of bearings shortens their lifespan. Knowing when to grease, and how much to grease, are the keys to optimizing bearing lubrication. Predict re-lubrication intervals and add just the right amount of grease with SDT's integrated ultrasound greasing solutions.

Sensors & Accessories

The versatility of the SDT270 is enhanced by a vast range of sensors and accessories making virtually every inspection possible. SDT sensors add ergonomic comfort and personal safety to your surveys.

- Contact probes, threaded sensors and accelerometers perform acoustic lubrication, vibration analysis and routine data collection of rotating assets, steam traps, valves, and hydraulics.
- Non-contact sensors such as flexible sensors, extended distance sensors and the parabolic dish find compressed air, steam and vacuum leaks, electrical faults, worn or misaligned couplings, belts and chain drives.
- Transmitters fill a volume with artificial ultrasound to identify tightness integrity issues with vehicles, ships, buildings, clean rooms, vacuum chambers and more.

Contact Sensors



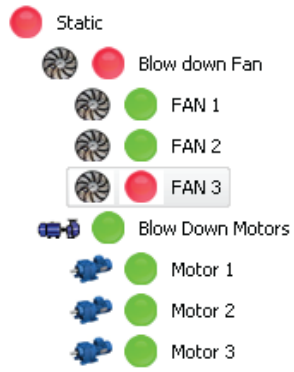
Non-Contact Sensors

Ultrasonic Transmitters

Alarms, Trending and Signal Analysis

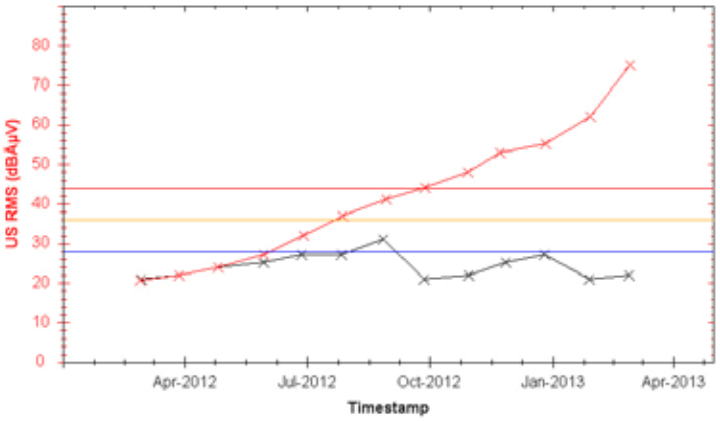
Making sense of the data you collect is essential to an effective predictive maintenance programme. Ultranalysis Suite lets you establish baseline readings and set alarms that tell you when your equipment is transitioning from good to bad.

SDT gives you the tools to structure your surveys, perform data trending and advanced signal analysis.

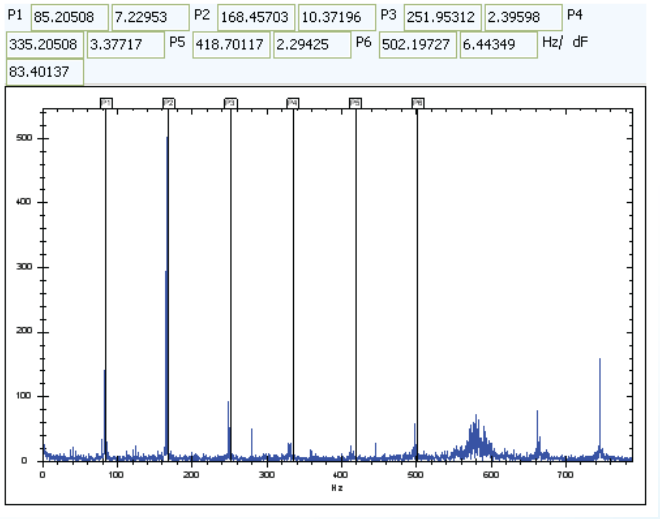


- With custom alarm levels you can see asset conditions at a glance
- Static data trending allows you to track an asset's condition over time
- Analysis of dynamic data spots fault conditions in critical rotating assets.

Trending Static Data



Spectrum Analysis



Support

Our focus is maintaining your ultrasound assets so you can focus on maintaining your company's assets.

SDT Technical Support Services are here to ensure that your SDT products and software operate to the standard you expect and that you benefit from the most current firmware and software available.

SDT270 Technical Specifications

Built-In Measurement Capabilites	Ultrasonic sensor Infrared temperature sensor (optional) Tachometer (optional) Vibration (optional)
External Sensors	2 ports (Lemo 7 pin connectors)
Data Logger	Models SDT270SS, SD and DD with DataDump -100 Measurement Nodes -Total of 4000 Measurement Points Models SDT270SU and DU with Ultranalysis Suite -10000+ static measurement points -6675 seconds for dynamic data (8 kHz sampling frequency) -13350 seconds for accelerometer 10Hz - 1kHz bandwidth (4 kHz sampling frequency) -1668 seconds for accelerometer 10Hz - 10kHz bandwidth (32 kHz sampling frequency)
Communication	USB interface
Battery Pack*	Rechargeable 8 cell 4.8V, 4600mAh NIMH Nominal Capacity: 4.6 Ah LifeSpan: 500 to 1,000 charge/discharge cycles Charge Lifetime: 8 hours without backlight ReCharge Time: 6 to 7 hours
Safeguards	Short-circuit, reverse polarity and temperature protection
Auto Power Down	After preset time
Housing	Extruded Aluminum
Weight	830 g / 29.3 oz (with battery and holster)
Dimensions	226 x 90 x 40 mm / 8.9 x 3.54 x 1.57 inches
Protective Casing	Shock Resistant Silicone
Headphones	Capable of working in noise levels up to 130 dBA
ATEX Certification	The SDT270 now meets the requirements set by ATEX Directive 94/9/EC (II 1 G Ex ia IIC T3/T2 Ga) for use in the most dangerous and potentially explosive atmospheres in the world. Recognized by CSA.

** for optimum performance, the battery pack is equipped with an electronic management system (includes digital serial number, capacity and temperate management)*

Our promise to be our best for you

At SDT we believe we have a responsibility to produce products that help our global economy while at the same time sustain our planet for future generations. Giving our best to you is more than just a commitment, it is our promise.

Your SDT Certified Partner

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