SDT270

the evolution of ultrasound

Time to enhance your maintenance programme

SDT270

the evolution of ultrasound

Your customised maintenance kit…

HEAR MORE SDT

The power of ultrasound for maintenance professionals

The SDT270 features multiple significant innovations dedicated to the improvement of predictive maintenance programmes. Manufactured by and for maintenance professionals, the SDT270's innovation show our commitment to the production of intelligent and progressive instruments. Not only is the SDT270 the first portable ultrasound detection device to include both a built-in temperature sensor and a laser tachometer, but it's also the first one to feature an onboard SQL database to capture and manage survey data.

The "building blocks" concept: for more flexibility

The SDT270 honours our reputation for intelligent design and solution providing. SDT's "building blocks" concept combines different types of sensors with the Ultranalysis® Suite to build a multi-functional maintenance set. Once combined, those two elements square the circle of maintaining simplicity for those who need it, while providing sophistication for those who want it, for any kind of budget. SDT also offers a wide range of training courses that guarantees a quick return on investment.

SDT270

Training	Certification	Implementation			
Measurements	Static	Dynamic	Trigger		
Software	Storage	Trend	Analysis	Remote	
Sensors	Ultrasound	Acceleration	Temperature	RPM	Flow
Applications	Leaks	Lubrication	Mechanical	Electrical	Steam	Tightness

Display
Int. US sensor 04:04
TR 6.7 A=80 dBuV
Min 2.6 Max 13.1
Sensor Static >>

Accurate and comparable wave files

The SDT270 is the first ultrasound detection device to use "high fidelity" ultrasound recording to allow inspectors to maintain a database of accurate sound files. Each time signal is sampled 250.000 times per second and stored into the SDT270's substantial internal memory. The results are clear and easy to compare signals, allowing the establishment of a reliable and precise diagnosis.

Two channel inputs

The availability of 2 channel inputs allows you to connect several sensors simultaneously and to carry out consecutive measurements. Without having to change or reconnect sensors, static data (ultrasound data in dBµV, temperatures, rotations per minute and accelerations) as well as dynamic data (time signals recorded into .wav files) can be stored sequentially.
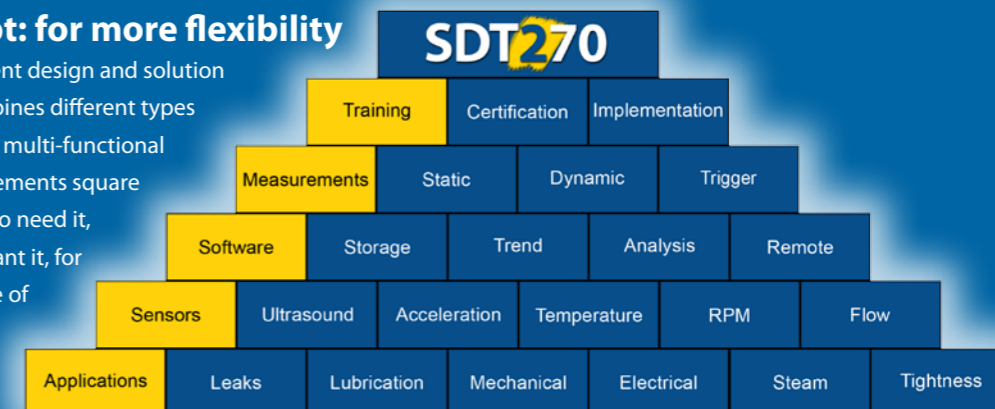The SDT270 redefines the concept of intelligent instrument design to make even more efficient use of your time.

Remote support and training

The SDT270 is the first ultrasound detection device accessible through its IP address. Remote access will bring new possibilities to your maintenance programme in terms of support, training and measurement triggering.

SDT270's upgradeable platforms

The SDT270's platform offers many upgrade possibilities. The upgrade is done by remote control, giving you access to new or more advanced functionalities. There's a choice between six basic configurations to which you can add multiple sensors to create a detector/collector matching your needs. Add the UAS suite software to it and you'll obtain a synergistic partnership between your SDT270, your maintenance team and your computer.

UAS – Ultranalysis® Suite

UAS manages the collection, processing, and analysis of the data measured by the SDT270. It's a library in which you can store and organise collected data in order to make it easy to find. UAS can process static data (dBµV, °C/F, RPM, SCFM) as well as dynamic data (ultrasound signals for time and spectrum analysis). The UAS tree structure allows any size of database and gives the possibility to divide it into multiple survey rounds for easier management. Furthermore, synchronised databases in both your SDT270 and your computer allow on-the-fly creation of survey points.

Ultranalysis® Suite
Powerful software to manage intelligent hardware

SDT270

SDT270
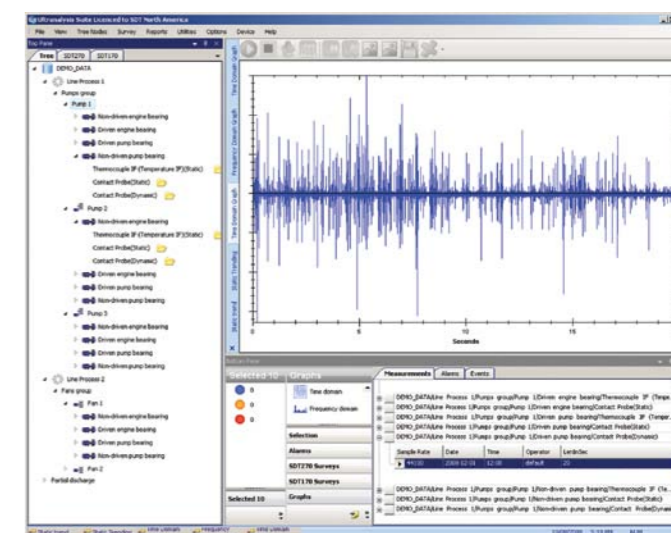
CE

Defective bearings?   **MCC panel faults?**   **Pump cavitation?**   **Condenser leaks?**   **Steam leaks?**   **Water leaks?**

No matter what your application is … WE HEAR MORE !

Choose your configuration...

At SDT, we know that our customers have their own particular needs in terms of ultrasound detection. That's why we've developed an entirely adaptable ultrasound detector that will evolve along with your maintenance programme. Nevertheless, we still help you in your choice process by offering multiple standard configurations designed for particular applications. Whether you are a leak surveyor, a lube technician, a mechanical inspector, an electrical inspector, a steam systems inspector, or involved in tightness testing, SDT has a BASIC or PRO version that matches your application.

And if you don't find what you are looking for in our list of pre-defined kits…no problem, just create a custom kit built specifically for your needs.

SDT270 : basic versions

	SB	SS	SD	SU	DD	DU
Measurements						
Static (dBµV, °C/F, RPM, SCCM)	√	√	√	√	√	√
Dynamic (time signal recording)	-	-	-	-	√	√
Memory						
Generic 20-node tree	-	√	√	-	√	-
Unlimited user-defined tree with UAS	-	-	-	√	-	√
Communication						
Datadump PC transfer	-	-	√	-	√	-
SQL auto-synchronising database to UAS	-	-	-	√	-	√

√ = standard feature   - = not included in this version

... then add your sensors and accessories.

Ultrasonic contact sensors
Resonant sensor (RS1 needle)
Magnetic resonant sensor
Threaded resonant sensor (RS1 thread)

Applications
Mechanical systems
Slow speed bearings
Steam traps & valves
Hydraulic systems
Gearboxes
Condition monitoring
Acoustic bearing lubrication
Permanent mounted monitoring
Quality control

Airborne ultrasonic sensors (long distance)
Parabolic dish with laser pointer
Extended distance cone

Applications
Compressed air systems
Electrical inspections
 • Transformers
 • Sub-stations
 • Insulators
 • High KV T&D lines
 • Transmission/distribution lines
 • Radio frequencies interference
Tightness inspections
Quality control
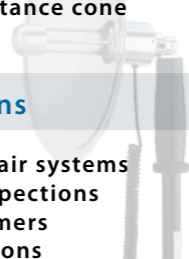
Airborne ultrasonic sensors (short distance)
Internal ultrasonic sensor
Flexible ultrasonic sensor

Applications
Compressed air leak detection
Mechanical inspections
Belt drives and couplers
Electrical inspections
 • Switch gear panels
 • Motor control centres
 • Arcing, tracking, Corona
Tightness inspection
 • Vehicles, ships, trains
 • Clean rooms, autoclaves
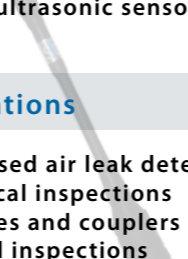
Non ultrasonic built-in sensors
Infrared pyrometer
 Laser tachometer

Applications
Bearing condition monitoring
Slow speed bearings
Bearing lubrication
Stream traps inspection
Variable speed drives
Building envelope inspections

Non ultrasonic external sensors
Mass air flow sensor (SCFM)
Thermocouple interface (°C/F)

Applications
Air leak quantification
Bearing condition
Bearing lubrication
Steam trap inspections
Contact temperature measurement

Ultrasound transmitters
200 mW bisonic transmitter
8 x125 mW outputs transmitter

Applications
Tightness inspections
 • Vehicles, ships, trains
 • Clean rooms, autoclaves
 • Building envelopes
 • Air intake leaks
 • Turbocharger leaks
 • Aerospace and fuselage
 • Wind noise/water leaks

Ultranalysis® Suite
## Powerful software to manage intelligent hardware

The SDT270 offers a very wide range of measurement possibilities. Ultranalysis® Suite (UAS) is designed to help you manage the valuable information gathered by your SDT270. UAS is a permanent link between your maintenance team, your computer, and your SDT270. It features an intuitive 3-panel workspace.

The left panel is a tree structured database to host your plant's assets. This is also where you define the type of data your SDT270 has to collect, when it has to be collected and by whom. To each measurement point, you can choose to attach an alarm with three levels of security: absolute, safe and relative. When collecting the measurement data, the

SDT270 will alert the inspector if any alarm level is reached.
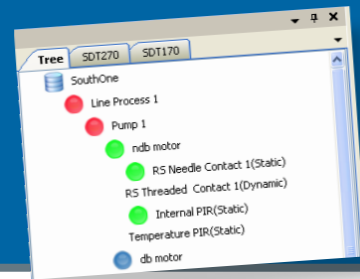
In the main panel, you can display both static data (dBµV, °C/F, RPM, SCFM) and time signals of any length. Static data is presented as one or more trend graphs. Dynamic signals are displayed in time or spectrum view.
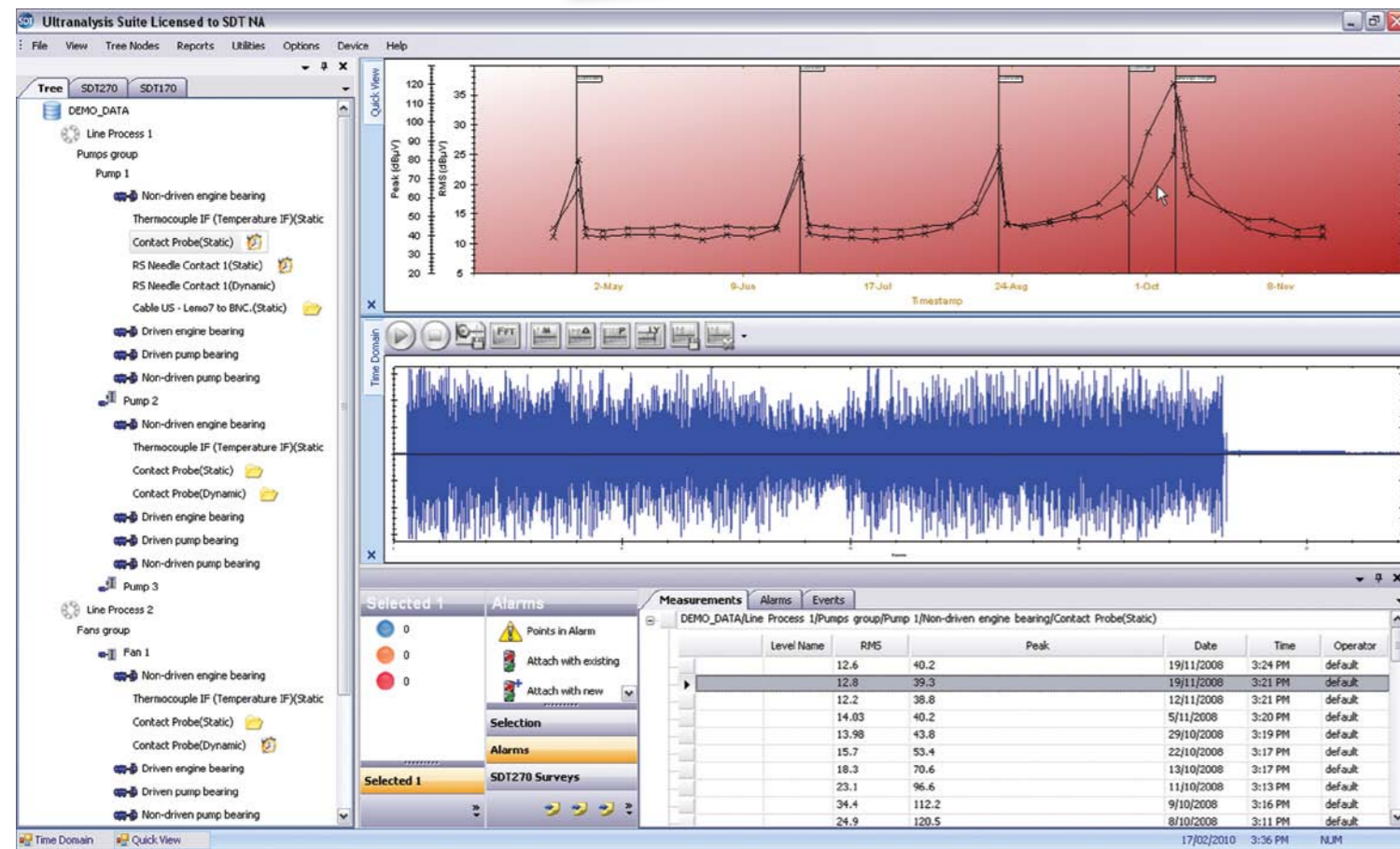
The bottom panel is the control panel of UAS. It allows you to sort data using virtually any imaginable filter. For instance, you can sort based on all the measurement points that haven't been collected yet or make a list of the assets that have reached an alarm level. You can also sort your measurement data

according to very specific criteria. For example: simultaneously display all the measurements collected on a certain group of machines and compare the resulting measurements. This function allows you to quickly set benchmarks and spot anomalies among a group of similar machines (pumps, engines, etc…). It's a great way

to spot trends and use these trends to set alarm criteria and follow-up programmes. In combination with UAS, the SDT270 manages to remain intuitive and easy to use, while offering a very wide range of functionalities.

SDT ultrasound training
The cornerstone of an effective ultrasound programme

" Investing in ultrasound equipment without investing in training for your maintenance team is like buying a Corvette and driving it in first gear; you can make it roll but you will never make it perform "

Training: a wise investment!

Investment in training automatically results in more "involved" inspectors. It is the foundation for an effective and long lasting maintenance programme. Ultrasonic training programmes are extremely effective and practical. A good training programme is a guarantee for quick return on investment.

Twenty years of experience have taught us that each maintenance programme is different and every inspector is unique.

Certification training

Our certification training course for "Air & structure borne ultrasound inspector" has been certified Level 1 by the ASNT. It is a 2½-days long comprehensive mix of theoretical and practical learning that ends with a written theoretical and practical exam which, in case of success, will reward your inspectors with a certificate. We strive for a maximum transfer of knowledge and skills by matching ultrasound theory with the many applications you will encounter on the spot.

Certification training is offered in both

public and private setting. Public classes are organised on a regular basis by SDT. They gather technicians from various companies, which results in a productive and enriching exchange of ideas. The private sessions are ordered by the customer and held on site. They are equally rewarding because the instructor can concentrate on issues specific to the facility's maintenance programme. Your contact at SDT will help you decide which is right for you.

Implementation

Implementation training by an SDT specialist takes place when your SDT270 is delivered. It allows inspectors to become well acquainted with the device as quickly as possible, which results in a more efficient use of your investment. Theoretical and practical aspects of this training are adapted to the customers' needs.

During this start-up training we will bring you a more precise understanding of your applications. Our experts can help you develop an efficient maintenance strategy by helping you to define goals, elaborate procedures, explain the software, set up your database, etc…

From the classroom…

to the practice room…

to the factory floor.

Customised technical support

Protect your investment with SDT's custom support contracts

SDT's technical support services guarantees that your SDT products and software operate to the standards you expect. It ensures your access to the most current software and firmware. SDT designed a range of support services aimed at helping you reach your goals and protect your investment in our technology. We focus on maintaining your ultrasound equipment so you can focus on maintaining your assets.

Warranty and SDT270 SoundCare	Ultranalysis® SoftCare support plan
SDT270 warranty	**UAS SoftCare BASIC**
Every SDT270 come with a 2 year* warranty which protects your investment against manufacturer's defects including workmanship and firmware updates.	SoftCare BASIC comes with every UAS license. It gives you access to our technical support for 6 months: • 6 months of e-mail support • 6 months access to software updates • 6 months access to our online user's group
SDT270 SoundCare^3 ADVANCED	**UAS SoftCare^3 ADVANCED**
SoundCare^3 ADVANCED is a 3 year warranty contract that ensures your SDT270 and all its sensors are in original working condition. Included in this service: • 25% savings on yearly calibrations • No haggle repairs (in normal use) • Priority treatment on all service request • Free battery replacement in year 3 of the contract. • Access to the firmware updates for the duration of the contract.	SoftCare^3 ADVANCED gives you access to 3 years** of technical support: • 3 years of support by e-mail, phone, and remote PC access. • Registered access to SDT's technical experts, problem resolution, support and critical problem resolution service. • 3 years of software update • 3 years access to our online user's group • Training voucher for 1 user.
SDT270 SoundCare^6 PRO	**UAS SoftCare^6 PRO**
SoundCare^6 PRO is a 6 year warranty contract that includes the same features as SoundCare^3 ADVANCED during six years but also: • Free battery replacement in year 3 and 6 of the contract.	SoftCare^6 PRO includes the same advantages as SoftCare^3 but gives you access to it for 6 years**.
*Batteries are guaranteed for six months **For more details see the terms and conditions of the contracts.	

SDT: Leader in ultrasound detection for industrial maintenance

Thanks to its 30 years of experience, SDT has become the undisputed leader in its field. SDT designs and produces measuring instruments for ultrasonic leak detection, industrial maintenance applications, tightness testing and quality control. With an extensive knowledge of industrial maintenance requirements, SDT combines it's intelligent and progressive instruments with powerful database management software and certified training.

Our mission to always provide our customers with the most effective, reliable and economic solutions to their problems is the basis to our success.

SDT270, WO2009/068052 patent application filed.

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