

# SDT340



RELIABILITY'S FIRST LINE OF DEFENSE.

WITH ULTRANALYSIS® SUITE 3

# SDT340

## ULTRASOUND & VIBRATION DATA COLLECTOR



### WHAT DOES EARLY DETECTION MEAN FOR YOU?

Reliability teams need an analytical yet simple solution for detecting asset failures early.

The SDT340 is a multi-functional data collector trusted by maintenance and reliability teams around the world for its accuracy and reliability. By combining ultrasound and vibration analysis with temperature and tachometer measurements, the SDT340 delivers a comprehensive view of the health of many different production assets.

Invest in confidence, versatility, and early detection with the SDT340.



# DETECT, MEASURE AND ANALYZE!



Collect ultrasound, vibration, temperature, and tachometer data.



A 10-minute measurement acquisition allows for slow-speed data collection.



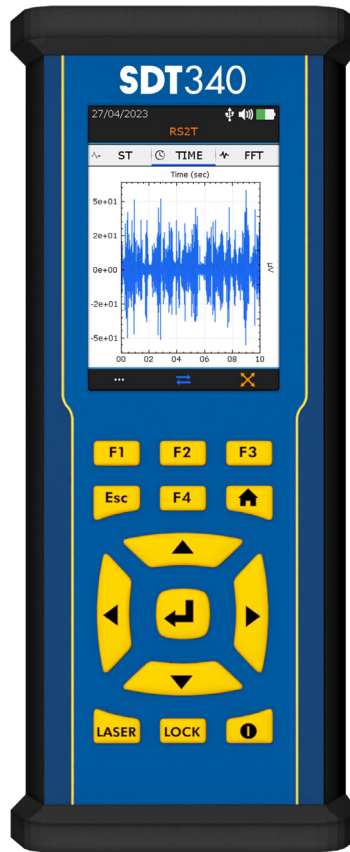
Simplified metrics provide immediate feedback with each measurement.



Navigational images help keep track of data collection points during routes.



Recall historical data for effortless trending and alarming in the field.



See defects others simply cannot with a 256k sampling rate.



View time signal & spectral data on your data collector in the field.



Build your database for seamless route-based monitoring.



Equipment defects are first present at high-frequencies. Find them first with ultrasound.



Deal with less cables while in proximity to rotating machinery with bluetooth headphones.



## SDT340 KEY FEATURES

The SDT340 Ultrasound Data Collector is engineered to enhance and simplify ultrasound inspections with advanced, user-friendly features.

The extended measurement acquisition time is perfect for slow-speed data acquisition.

A super high resolution sampling rate makes the SDT340 ideal for detecting lubrication related failures or pump cavitation. The device's on-screen time waveform and spectrum analysis, combined with access to simplified KPI's provide critical insights in real-time.

Several more user-friendly features include Bluetooth headphone connectivity for wireless convenience, route-based inspection for organized workflows, streamlined asset and data management, and navigational images to efficiently guide users through inspection points.



# UAS3

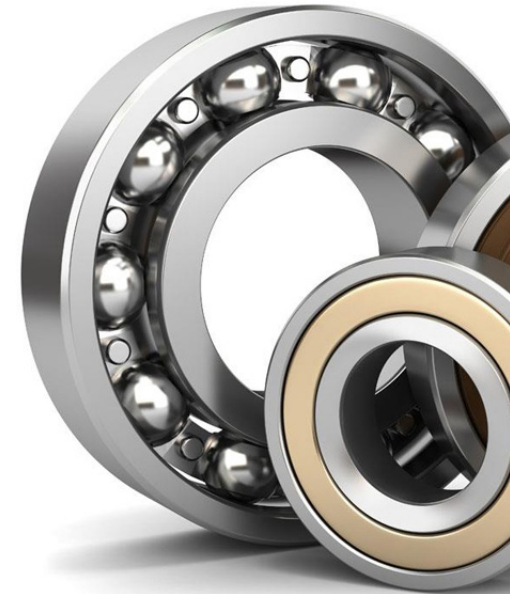
ADVANCED ANALYTICS.  
AUTOMATED DIAGNOSTICS.  
CONFIDENT CONCLUSIONS.

## MEASURE, TREND, AND ANALYZE ULTRASOUND & VIBRATION DATA

UAS3 is the most advanced ultrasound condition monitoring software ever written. Helpful features like tree-structured databases and customizable dashboard make scaling a condition monitoring program easy and efficient.

Customizable trend views, high-resolution time and spectrum data, and powerful analysis tools give you the insights needed to make informed decisions.

Combine UAS3's intuitive alarm system and streamlined report generation to ensure clear communication between technical teams and decision-makers.



### MEASUREMENT MATRIX:

View a summary of the previous four recorded measurements.

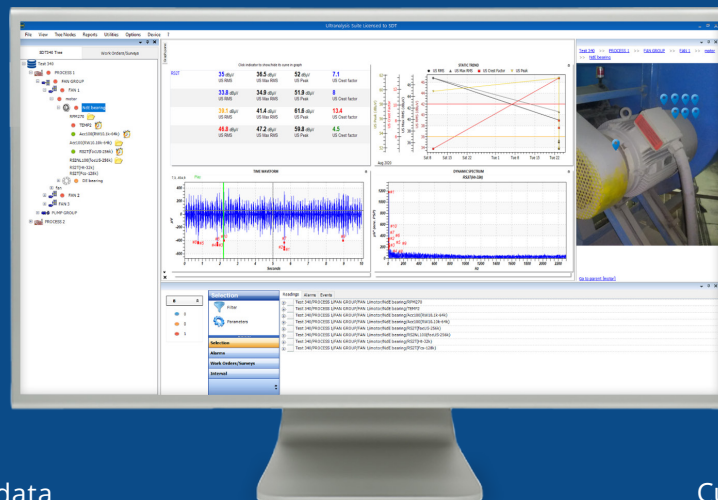
### INSIDE UAS3

### TIME WAVEFORM:

Visualize friction and impacting events in real time.

### TREE STRUCTURED DATABASE:

A 7-Level Tree Structure provides navigation guidance to data collection points throughout your facility.



### DYNAMIC SPECTRUM:

View the dynamic spectrum of your data and drill down to apply sophisticated analysis tools.

### INTUITIVE ALARMS:

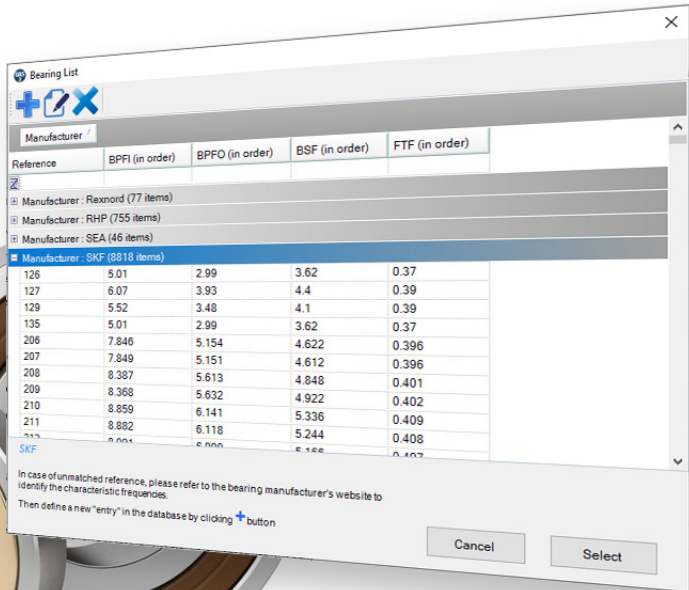
Alarms warn us when our data indicates the need for action.

### STATIC TREND:

Customizable indicators simplify trending asset health.

# THE BEARING

# TOOLBOX



Bearing List

Manufacturer

Reference	BPFI (in order)	BPFO (in order)	BSF (in order)	FTF (in order)
Manufacturer: Rexnord (77 items)				
Manufacturer: RHP (755 items)				
Manufacturer: SEA (46 items)				
Manufacturer: SKF (8818 items)				
126	5.01	2.99	3.62	0.37
127	6.07	3.93	4.4	0.39
129	5.52	3.48	4.1	0.39
135	5.01	2.99	3.62	0.37
206	7.846	5.154	4.622	0.396
207	7.849	5.151	4.612	0.396
208	8.387	5.613	4.848	0.401
209	8.368	5.632	4.922	0.402
210	8.859	6.141	5.336	0.409
211	8.882	6.118	5.244	0.408
SKF	...	...	...	...

In case of unmatched reference, please refer to the bearing manufacturer's website to identify the characteristic frequencies.  
Then define a new "entry" in the database by clicking + button

Cancel Select

Trending bearing data with ultrasound is essential for identifying early warning signs of wear and giving reliability teams time to take proactive action. However, most ultrasound analysis software falls short, offering only basic analysis tools that don't uncover the root causes of failure.

SDT's Bearing Toolbox forever changed ultrasound bearing analysis by adding a massive bearing database with over 50,000 references and corresponding fault frequency cursors.

This level of analysis was previously exclusive to high-end vibration analysis software, but the Bearing Toolbox levels the playing field for ultrasound inspectors.



The SDT340's union with UAS3 creates a seamless workflow that bridges the gap between precise data collection and advanced analysis.

Together, the SDT340 and UAS3 deliver an end-to-end solution, empowering users to efficiently assess, manage, and act on the health of their assets like never before.



MECHANICAL



LEAKS



LUBRICATION



ELECTRICAL



VALVES



STEAM



HYDRAULICS



TIGHTNESS

# 8 APPLICATION PILLARS

## BEARING MONITORING

Detect minor defects before they become catastrophic failures

## LEAK DETECTION

Identify leaks in pressurized systems before they waste resources and cause safety risks.

## LUBRICATION

Lubricate bearings with precision and extend rotating asset lifespan.

## ELECTRICAL INSPECTION

Prevent electrical system failures by identifying arcing, tracking, partial discharge, and corona.

## VALVES

Identify common valve failure modes like blockages, leaks, passing, and mechanical malfunctions.

## STEAM TRAP TESTING

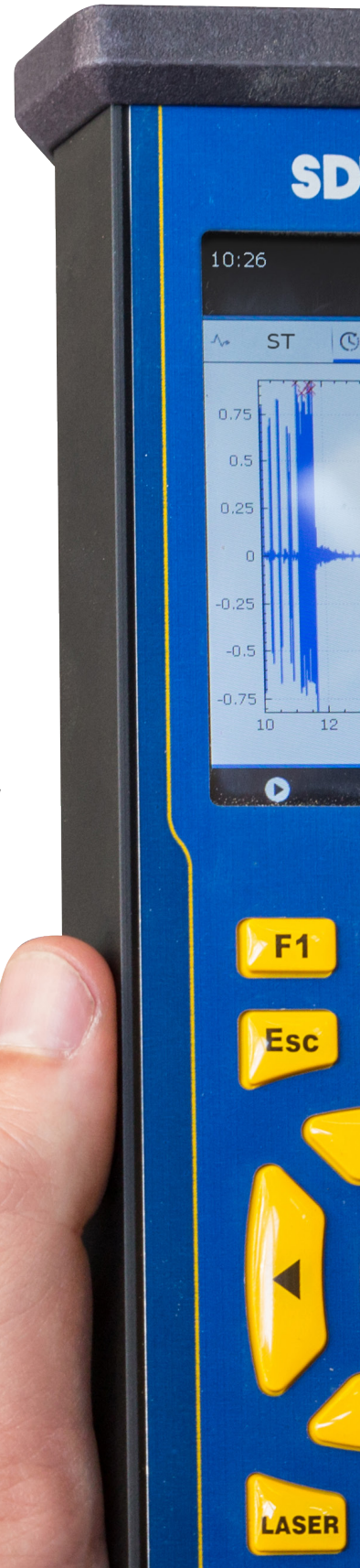
Improve steam system efficiency and reliability by detecting failed steam traps.

## HYDRAULICS

Monitor hydraulic systems for leaks, pressure drops, passing, blockages, and contamination.

## TIGHTNESS TESTING

Ensure tightness integrity to prevent contamination and wasted resources.



# SENSOR TECHNOLOGY

The SDT340 seamlessly integrates with SDT's globally trusted line of contact and airborne ultrasound sensors. Known for their accuracy and reliability, these advanced sensors ensure users can detect the earliest signs of asset failure - which are always present at higher frequencies.

## AIRBORNE SENSORS



### AIRSENSE

Medium to long-range handle style sensor with an integrated Extended Distance Sensor.



### ULTRASENSE

An integrated close range sensor ideal for detecting leaks, friction, and impacting.



### FLEXIBLE SENSOR

A flexible close-range sensor perfect for detecting friction, impacting, and leaks in hard-to-reach areas.



### PARABOLIC DISH

A precision long-range sensor accurate up to 60 meters for detecting leaks, and electrical discharge.

## CONTACT SENSORS



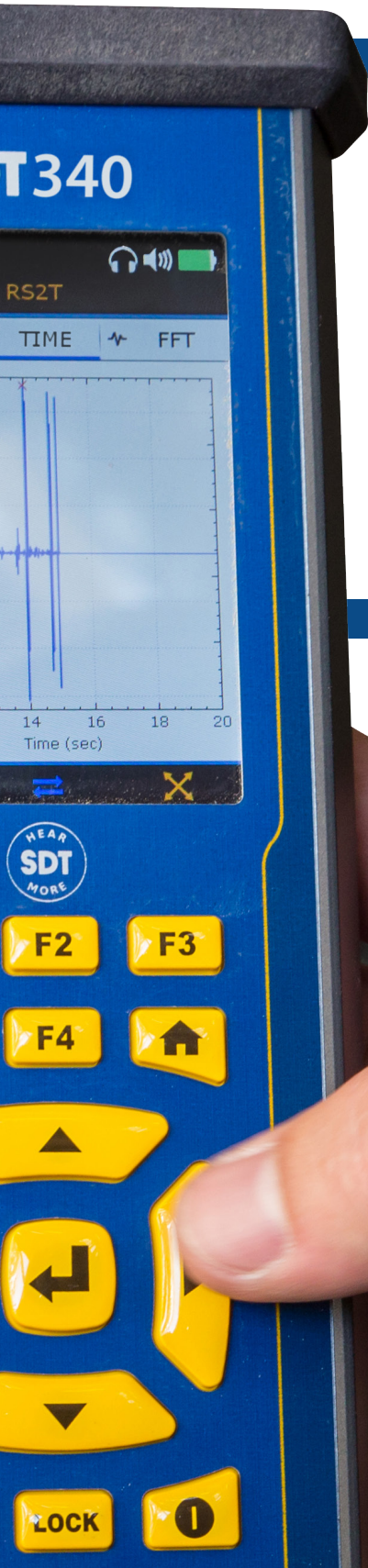
### RESONANT THREADED (RS2T)

A robust, mountable sensor ideal for long-duration data acquisition on assets like slow-speed bearings and gearboxes. This sensor works well for route-based data collection and permanent installation.



### RESONANT NEEDLE (RS2N)

Tailored for routine walkarounds or quick data collection on non-magnetic surfaces, offering versatility for inspections.



# LUBExpert **UPGRADE**

## ASSET CONDITION MONITORING & MACHINERY LUBRICATION MANAGEMENT, CONNECTED.

For years, reliability teams have monitored asset condition in one process and lubrication tasks in another. But in the field, these activities are closely connected. Every greasing task affects bearing condition, and every bearing response provides valuable asset condition data.

### PRECISION LUBRICATION MANAGEMENT

Precision machinery lubrication is one of the most direct ways to extend asset life. When rotating assets are lubricated with precision, bearings run with less friction, generate less heat, consume less energy, and experience less wear.

The result? Longer asset life, fewer unplanned failures, reduced maintenance costs, and more reliable production.

The SDT340's LUBExpert Mode brings precision machinery lubrication monitoring and management into the connected condition monitoring workflow of the SDT340.



### LUBEXPERT MODE FEATURES

#### ASSET & PROGRAM MANAGEMENT

Organize your asset database, assign lubrication work orders, measure and trend historical metrics, and maintain full visibility over asset health and lubrication management.

#### CONNECTED CONDITION MONITORING DATA

Collect ultrasound, vibration, temperature, and tachometer data during lubrication routes. Tie your condition monitoring data to lubrication activity, bearing response, and history.

#### DATA-DRIVEN LUBRICATION DECISIONS

Use real-time data, historical trends, and lubrication data to optimize relubrication intervals and quantities, and future lubrication tasks.

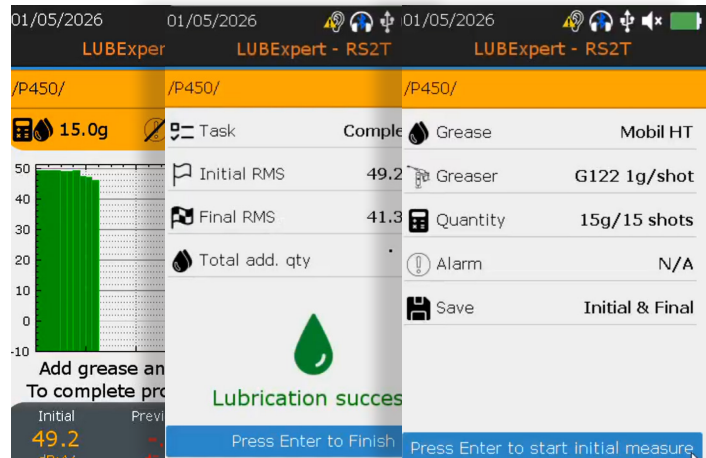
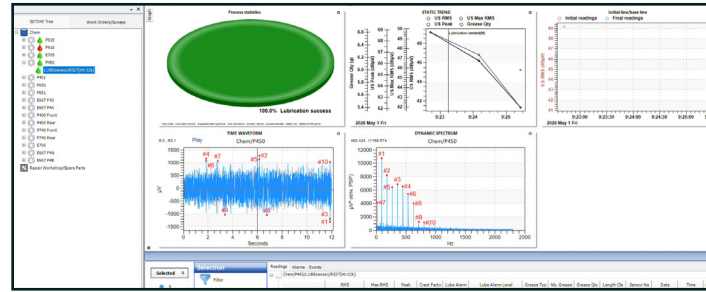
## LUBEXPERT MODE ENGAGED

SDT340, LUBExpert Mode, and UAS3 deliver an end-to-end solution, enabling users to assess and manage their assets' health. Seamless workflows bridge precise data collection with lubrication management and advanced analysis.

From lube intervals and grease type to grease guns and target assets, SDT340 guides every step.

As grease is applied, the SDT340 listens to the bearing's ultrasonic response, helping technicians understand how the bearing is reacting and when the proper amount of grease has been delivered.

LUBExpert Mode tracks long term lubrication activity, and every result helps you better understand bearing health, and further optimize future tasks.



## ACOUSTIC LUBE ADAPTER

The Acoustic Lube Adapter connects the SDT340 directly to the grease fitting, creating a sealed acoustic path for reliable signal capture. This ensures consistent data quality during every lubrication task.

## STRUCTURED LUBRICATION WORK ORDERS

Guide technicians through each lubrication task with clear instructions for relubrication points, lubricant types, grease guns, bearing specifications, intervals, and historical data.

## ADVANCED ANALYSIS & DASHBOARDS

Use dashboards, measurement matrices, trend views, and high-resolution signal data to analyze and trend performance.

## DETAILED REPORTING

Simplify complex lubrication and condition monitoring data with clear reports that support communication and confident decision-making.

## SDT340 Features and Technical Specifications

On-board measurements	Ultrasound, Vibration, Infrared temperature and Tachometer.
Dual Sensor Inputs	One for ultrasound measurement and one for vibration.
Time signal and spectrum	On-screen time waveform and FFT. Panning and zooming for signal navigation. Display of the 10 highest values and the 4 Cls.
Frequency range	up to 100kHz.
Sampling rate	32, 128, and 256 kHz oversampling focUS Mode.
Signal length per recording	6000 seconds (32 kHz sample rate) or 150 seconds (128kHz focUS Mode).
Data memory	4.2 GB allowing the storage of 71 minutes of signal sampled at 128 kHz or 286 minutes at 32 kHz.
Sensitivity	Class 1 instrument exceeding ASTM 1002-11 requirements for gas leak detection using the appropriate sensor.
Display	Full color TFT 3.5" screen 320x480. Active area: width 48.96mm (1.93") x height 73.44mm (2.89").
Bluetooth	For audio streaming.
Dimensions	L x W x H 221 x 93.5 x 44mm. (8.7 x 3.7 x 1.7 inches).
Housing	Extruded aluminum, shock proof rubber protections.
Weight	720 g (25.4 oz), including battery.
Headphones	Wired headset and wireless Bluetooth headset. The SDT340 is compliant to noise exposure health and safety requirements when using SDT provided models.
Warranty	Lifetime warranty. Visit <a href="http://www.sdtultrasound.com">www.sdtultrasound.com</a> for details.

### SDT ULTRASOUND SOLUTIONS

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