



# SVA 90

# SVA 95

our latest generation of portable instruments

Smart VibroAnalyzer 95 & Smart VibroAnalyzer 90



SVA 95



SVA 90

The **SVA 90** comes as a handy, three-channel vibration analyzer with speed unit that allows for the evaluating of machinery condition and rolling-element bearings with characteristic overall values. This instrument will help you to prevent costly downtime.

The **SVA 95** is a four-channel vibration analyzer with speed unit that comes with a multitasking tool in order to analyze your machinery. The unit has all the functions you could need in the field. It is an all-purpose measuring device ideal for fast easy route-based data collection, monitoring the condition of machines, and field balancing. The **SVA 95** is the most powerful vibration analyzer on the market – You name it, the **SVA 95** can do it!

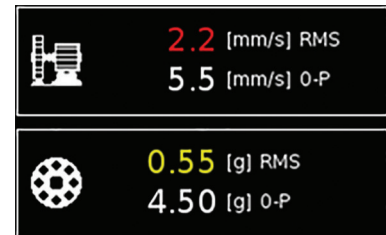
## Meter Mode



This module includes the following basic vibration measurements (**SVA 90** only).

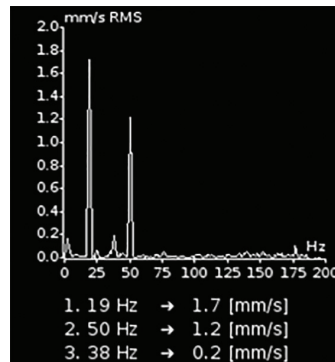
### Overall vibration

- Provides a traffic light display of vibration values based on pre-setup limits. The color indication is according to ISO 10816 standards.
- Overall (RMS) and Peak values are displaced with the following frequency ranges: Velocity (10 Hz – 1000 Hz) or Acceleration (0.5 kHz -25.6 kHz)



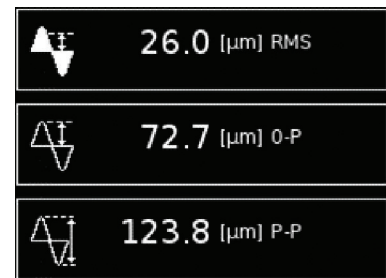
### FFT Spectrum

- In mm/s (RMS) with 3 maximum peaks (2 Hz – 200 Hz)



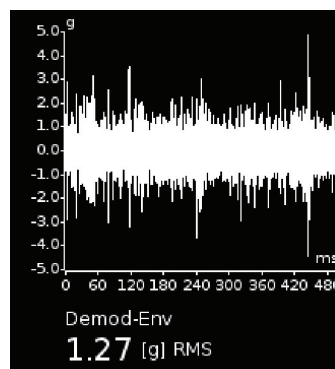
### Displacement values

- Uses the following frequency range of (2 Hz – 100 Hz)



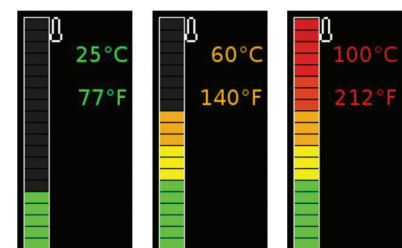
### Time Signal

- Used for roller bearings (0.5 kHz -25.6 kHz)
- Vibration in RMS for gearboxes/bearings in the following frequency ranges (0.5 kHz -1.5 kHz), (1.5 kHz -5 kHz), & (5 kHz -25.6 kHz)



### Temperature

- Displayed in colored ranges using IR temperature sensor



# Diagnostic

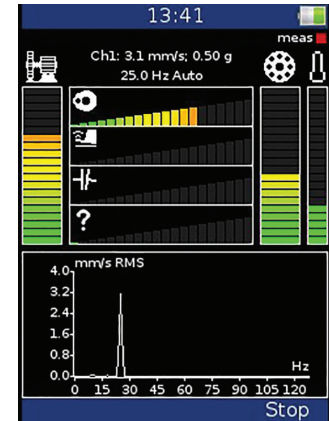
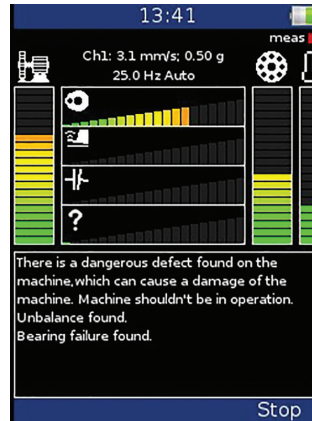


This module is an expert system for automatic detection of possible machine faults.

This feature displays several graphs and uses traffic light colors.

Displays the following faults:

- Overall machine condition
- Overall bearing condition
- Severity of unbalance fault
- Severity of mechanical looseness
- Severity of misalignment
- Displays via text if the found condition is good or severity of fault or provides a velocity spectrum displayed on the bottom of the screen.



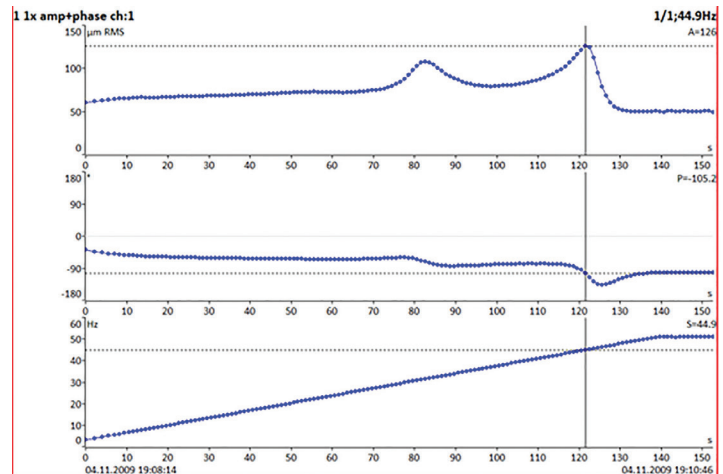
# Tracking



This module allows the user to set up a coast down or runup measurement.

The measurements can be taken based on multiple situations such as by speed change, time change, as soon as possible, etc.

This feature helps the user see where resonances in their machine are located allowing for additional analysis or balancing to be performed.



# Stroboscope

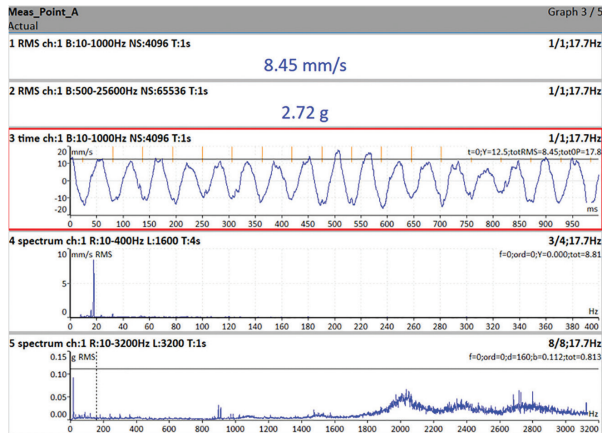


This module visually “freezes” the machine movement and checks its rotating parts (**SVA 90** only).

# Analyzer



This module allows the user to select the type of measurement from simple overall values to detailed FFT's and time wave forms. In addition, the user can perform more advanced measurements with proximity probes such as orbits.



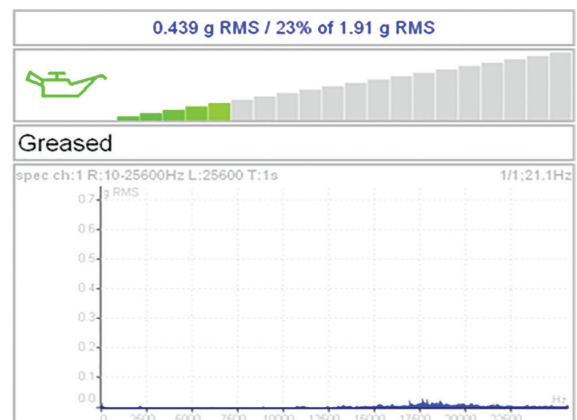
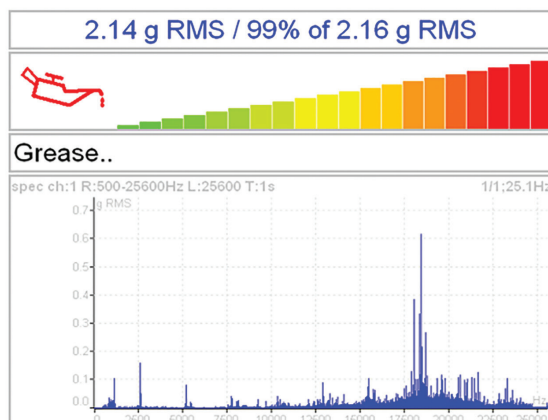
The user can set up the measurement settings according to their requirements such as frequency range, sampling, units, etc... and take all the predefined measurements simultaneously.

- Real-time FFT
- Demod/envelope analysis
- ACMT – low speed bearing analysis
- Order Analysis
- Orbit Measurement
- User Band Pass Analysis
- Frequency Range: 0.5 Hz - 25 kHz (64 kHz sampling)
- FFT Resolution: Min: 100 lines, Max: 25,600 Lines
- Fully simultaneous for 3 channels
- Crest Readings
- Time signal measurements
- Phase Shift
- DC Measurements
- Centerline Measurements
- Smax
- Overall Measurements

# Lubri - Greasing Control



This module is used in the lubrication replenishment process and measures the actual lubrication condition of a bearing on the **SVA 95**.

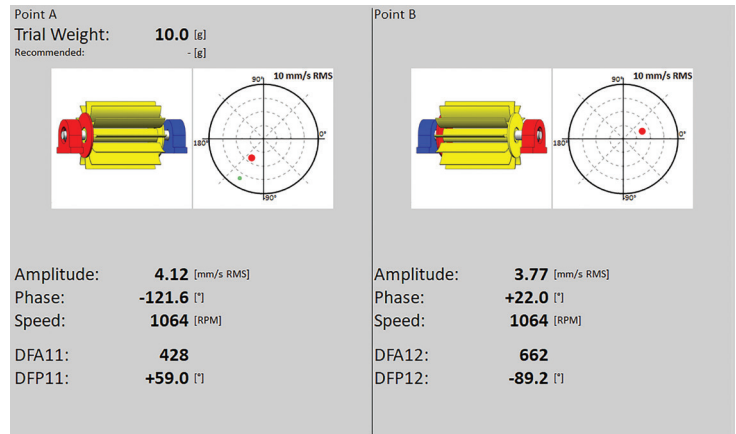


# Field Balancing



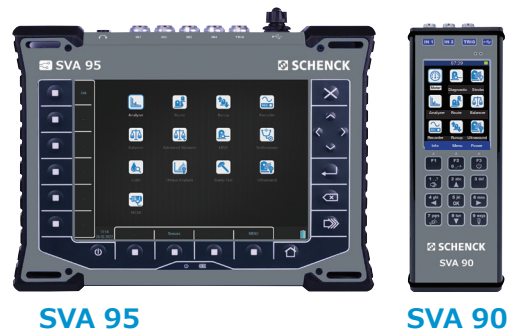
This module allows for balancing equipment in situ, both in the field and during final assembly, providing a quality product.

- Multiple balancing types such as Polar (0-360 degrees), component, and fixed weights
- Flexible Visualization of balancing: polar plot and table overview
- Optimizing the final vibration level at the two bearings supports in an early stage while balancing in a single plane
- Allows for Rotor setting to calculate balance quality according to ISO 1940

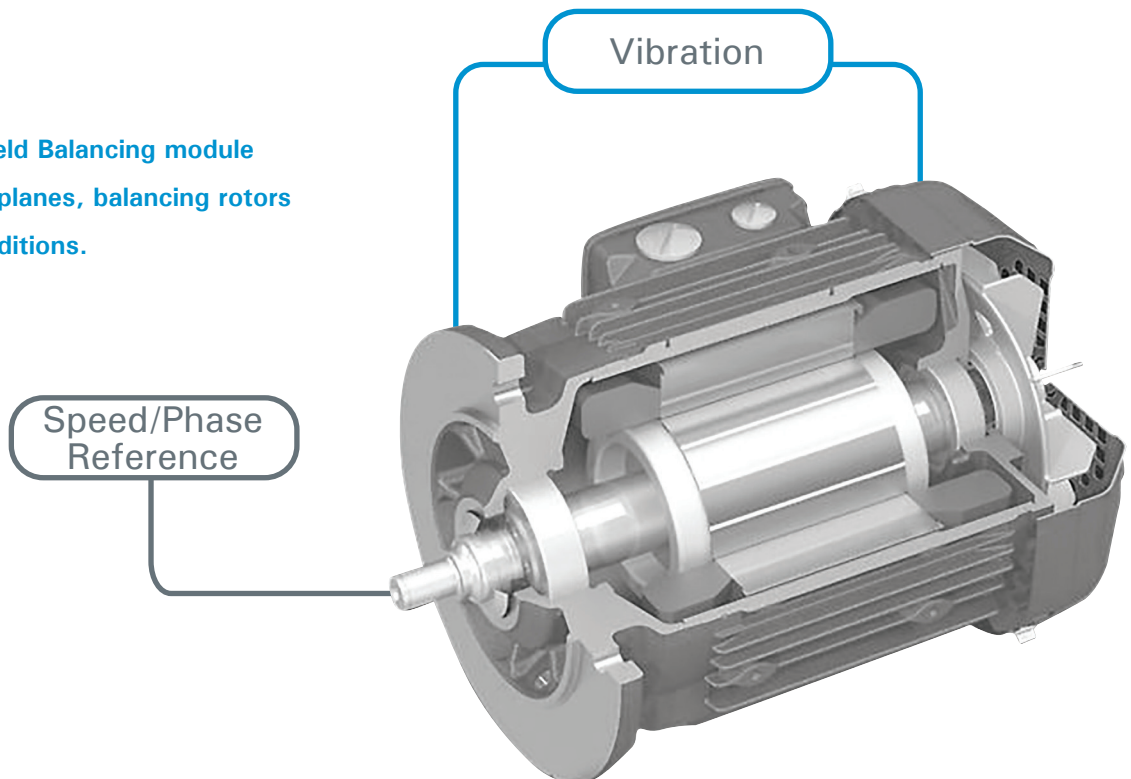


Two-plane polar plot

The **SVA 90/95** provides unprecedented time-saving balancing with a minimum number of measurement runs.



**This two-channel Field Balancing module allows 1 plane or 2 planes, balancing rotors under operating conditions.**



# Advanced Balancer



This module, available in the **SVA 95**, supports advanced balancing process enabling up to eight (8) plane balancing.

- In addition, it enables the number of measurement points to be greater than the number of planes.

Plane	1				
Mass L2 [g]		6.9			
Angle L2 [°]		+3.5			
Mass L $\infty$ [g]		6.2			
Angle L $\infty$ [°]		-6.8			
Residual Vibrations [ $\mu\text{m P-P}$ ]					
Point	A	B	C	D	
L2	17.0	22.9	15.6	15.2	
L2 5%	17.4	23.8	16.6	16.2	
L2 10%	17.9	24.7	17.6	17.1	
L2 20%	18.9	26.6	19.7	18.9	
L $\infty$	15.0	19.4	19.4	18.9	
L $\infty$ 5%	15.4	20.2	20.3	19.7	
L $\infty$ 10%	15.9	21.0	21.2	20.6	
L $\infty$ 20%	16.8	22.7	23.1	22.2	

# Data Collection



This module is used for day-to-day data collection of your factory machinery. Simply create your route tree with measurement points using the Diagnostic Center Standard software and take the measurements regularly. Transfer this collected data back to the Diagnostic Center to analyze the data and trends.

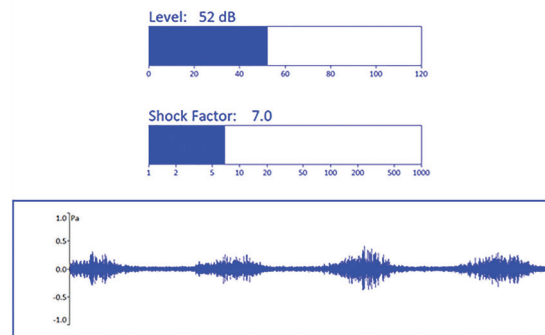
- Unlimited number of routes
- Up to 12 measurements per point
- Up to 3 vibration measuring points, plus speed reference (Simultaneously measured)
- Data review on site possible
- Diagnostic Center Standard
- Customized Reports via PC

# Ultrasound



This module uses a microphone (sold separately) to allow for the measurement of sound inaudible to the human ear.

- Typical applications that benefit from the use of ultrasound measurements are air leak detection, electrical arcing, or early bearing fault detection.



# Recorder



This module is a unique measurement mode allowing you to "record" the raw signal from the sensor i.e. the raw signal from the machine.

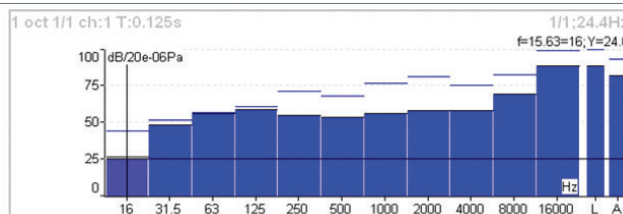
- The Recorder allows you to then post-process the signal later on the unit.
- The user can perform the post-processing on the same raw data multiple times.

# Octave Analysis



This module is designed for sound measurements on the **SVA 95**.

- Uses up to 4 Frequency Weighing options based on unit of loudness (phon)
- Uses set of digital filters



# Stethoscope



This module is designed for listening of vibrations on the **SVA 95**.

- Uses standard headphones
- Can be recorded and played back

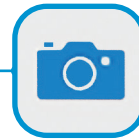


# Bump Test



This module enables the **SVA 95** user to find the resonance frequency of a machine by "bumping" the machine with a mallet.

# Camera

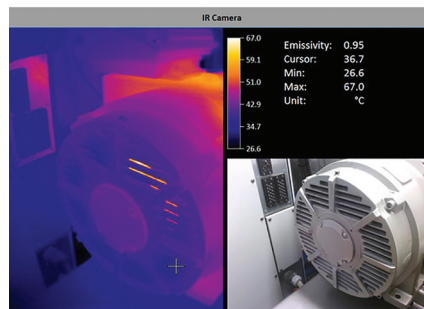


- This module is equipped with an optical camera to allow the **SVA 95** user to capture images of the machine they are working on.

# Thermal Imaging

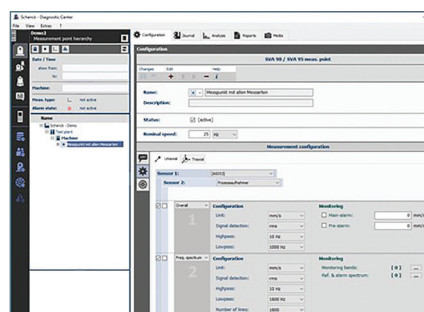


- This module provides an image capture of the temperature on a machine.
- The IR camera (sold separately) can be connected to the **SVA 95**.



# The Diagnostic Center

- **Diagnostic Center Basic**  
This software allows for connection of the **SVA 90/95** to the PC for Report Generation.
- **Diagnostic Center Standard**  
The Upgrade from Basic to Standard allows for additional cursor functions when analyzing the data on the PC. The Standard software also allows for the creation of Routes and is needed when the Data Collection module is added.
- **Diagnostic Center Pro**  
The upgrade to the Pro version of the software allows for the management of custom report templates and the use of the bearing and system database.



SCHENCK USA CORP.  
535 Acorn Street  
Deer Park, NY 11729

Tel.: +1-631-242-4010  
Fax: +1-631-242-5077

[www.schenck-usa.com](http://www.schenck-usa.com)  
[sales@schenck-usa.com](mailto:sales@schenck-usa.com)

DÜRR GROUP.

SCHENCK RoTec GmbH  
Landwehrstraße 55  
64293 Darmstadt, Germany

T + 49 6151 32-2311  
F + 49 6151 32-2315

[sales1.rotect@schenck.net](mailto:sales1.rotect@schenck.net)  
[www.schenck-rotec.de](http://www.schenck-rotec.de)