

 **SCHENCK**

# SmartBalancer **ECO**

Field Balancing at its core

Easy

Fast


Accurate

Reliable

*Passion for Balancing*



**SmartBalancer**  
**ECO**  
SMART & ECONOMICAL



Schenck, with proven track records of over 110 years in Balancing and Vibration Monitoring has come up with a new Portable Field Balancer "SmartBalancer Eco". This offers customers valuable service for Field Balancing and is ideally suitable for commissioning, service and maintenance of machines and systems.



**Result of Fault Diagnostics Statistics : Avoid Unbalance...**

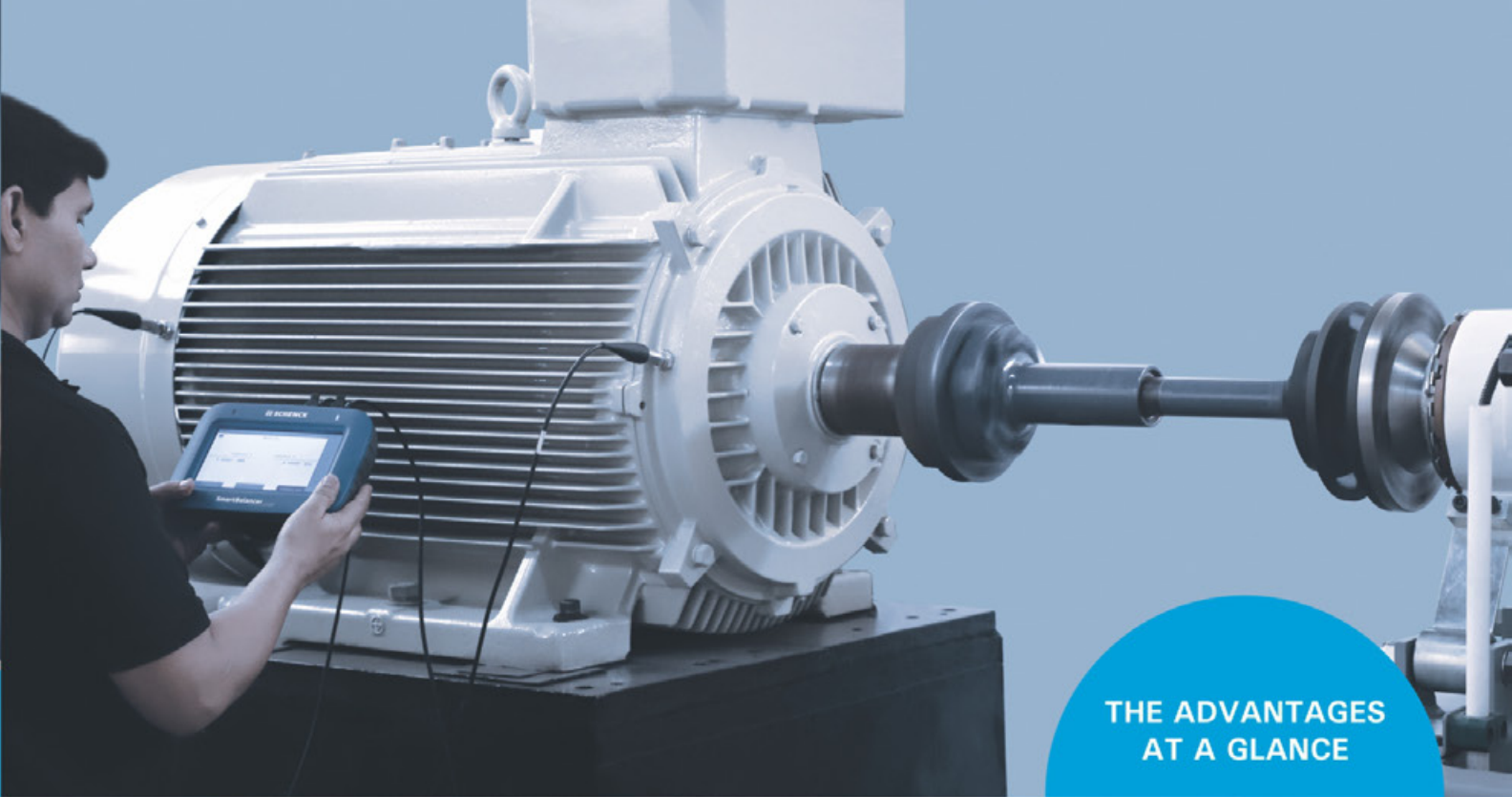
Alarming high rates of failures, over 50% are caused by unbalances in the rotors resulting in mechanical vibrations, leading to premature bearing failures, shaft deformation etc. Such unbalances can be easily diagnosed as well as corrected with the help of "SmartBalancer Eco".

**2 Plane Field Balancing** - The dynamic balancing performed on complete assembled equipment in Operating Condition also compensates for assembly tolerances. The procedure runs in three stages i.e. Measurement, Correction and Check Run.

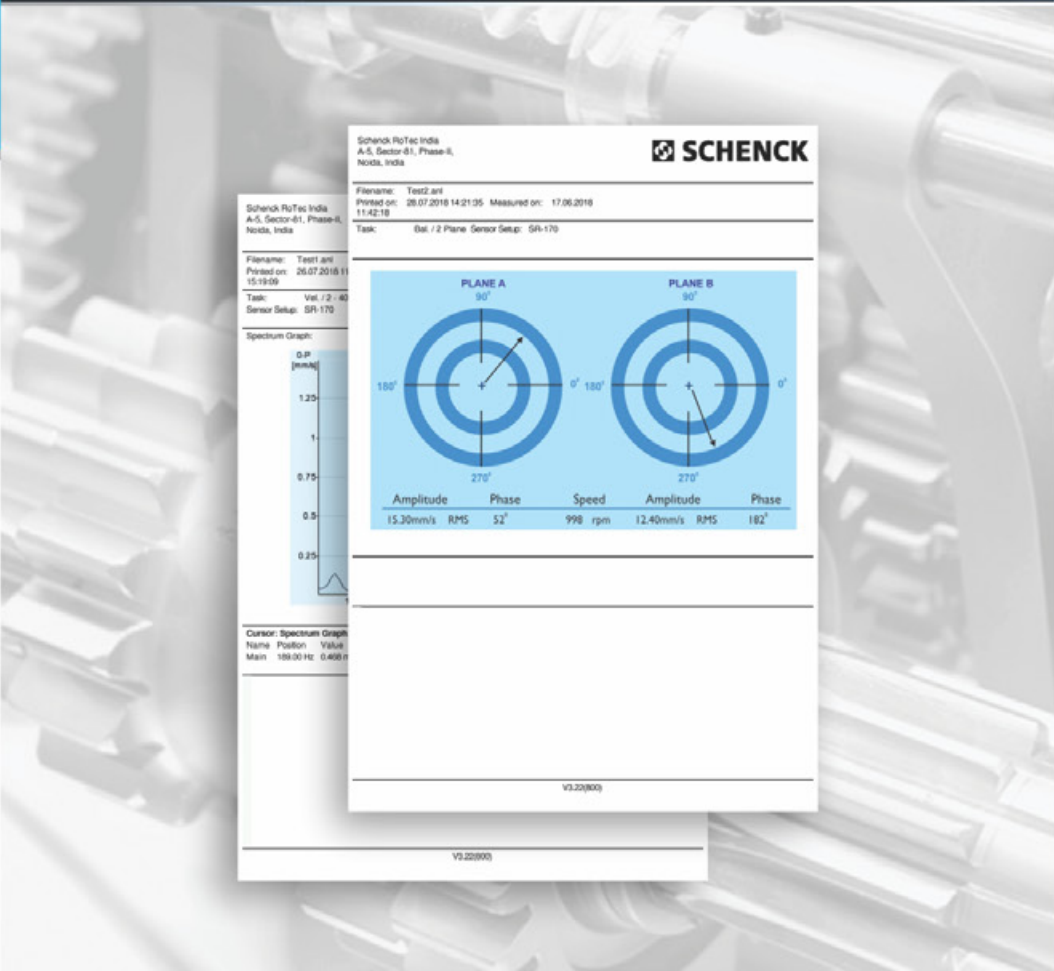
**Smart Touch Screen** user interface, clear, bright *color* display in compact, lightweight module, ideal for reliable and operator friendly measurements.

**Overalls and FFT** - For the identification of the cause of vibration, the SmartBalancer Eco offers high performance, 2 channel FFT frequency analysis which breaks down the vibration mixture occurring in the machine into their harmonic components and displays them clearly in the form of a spectrum to determine the causes of vibrations for subsequent correction.





## THE ADVANTAGES AT A GLANCE



- Tremendous value for money
- 2 Simultaneous Measuring Channels
- Easy operation with Touch Screen and user guidance
- Measurement of overalls and frequency analysis
- Graphic display : Polar Plots and Spectra
- Complete package for field balancing in easy to carry soft case
- Optical reference pick-up with 1 m measurement distances
- Storage of data and influence coefficients
- Fast and easy installation
- PC Software for reporting and data archiving

### PC SOFTWARE FOR REPORTING

DOCUMENTATION AND ARCHIVING:  
SUSTAINABLE QUALITY ASSURANCE FOR YOUR BUSINESS

PC software EcoSmart - Intuitive to use Windows™ based software to up and download stored data from SmartBalancer Eco, to archive data and to generate formatted views and printouts of reports for documentation.

## SCOPE OF DELIVERY

- Instrument with rechargeable battery
- Protective cover for LCD
- Charger (90...240 V, 50/60 Hz);
- International plugs
- 2 acceleration sensors (100 mV/g)
- 1 optical reference pickup (Class A laser)
- 2 reare earth magnetic bases for vibration sensors
- 1 straight probe for handheld measurements
- 2 connection cables for sensors (2 m)
- 2 extension cables for sensors (5 m)
- 1 connection cable for optical sensor (1.8 m)
- 1 extension cable for optical sensor (5 m)
- Magnetic stand for optical sensor
- Manual on USB stick
- Soft carrying case
- Self adhesive reflecting tape



## TECHNICAL DATA INSTRUMENT & EcoSmart SOFTWARE

### OPERATING MODES

- Balancing in 1 or 2 plane tracking filter
- Amplitude / phase / speed Overalls 2...1000 Hz, 10...1000 Hz
- Spectra (FFT) up 1000 lines, up to 0.1 Hz resolution averaging automatic peak list
- Reference Display of reference signal and speed

### MEASUREMENT

- 2 channels for simultaneous measurement of vibration acceleration or velocity (built in integration) display of results as peak, RMS, peak calc.
- 1 channel for optical reference sensor

### FIELD BALANCING

- Speed range: 120... 30000 rpm
- Correction planes: 1 or 2
- Unbalance correction polar / fixed locations

### EASY SETUP

- Dialogue assisted user guidance
- Polar display of measured vibrations
- Calculator for test mass proposal
- Storage of influence coefficients
- Trim balancing and repeat balancing

### OPERATOR INTERFACE

- 7" color touch screen; backlight (800 X 480 pixels)

### DATA PROCESSING

- Storage in instrument
- Measured data Instrument adjustments
- Balancing data up and download to PC via USB

### POWER

- Minimal operating time 8 hours
- Rechargeable battery (Li-ion)
- Continuous display of battery status
- In device charging

### MECHANICAL & ENVIRONMENT

- Weight: 1.15 kg (2.55 lb)
- Dimensions ( L X W X H ) 215 X 150 X 60 mm<sup>3</sup> (8.5 X 5.9 X 2.4 inches<sup>3</sup> )
- Protection class: IP65, dust and splash protected
- Temperature -10... 50°C (14... 122°F)

### SOFTWARE EcoSmart

- Up and download of data to instrument
- Archiving and printing of data
- Formatting of data
- Balancing reports

Further technical data and the complete scope of delivery can be found on our website at: [www.smartbalancereco.com](http://www.smartbalancereco.com)

**SCHENCK**

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