VIBROMETER-BALANCER
BALTECH VP-3470
BEST BALANCING SOLUTIONS VIBROPOINT

NEW!

TWO-CHANNEL PORTABLE SYSTEM
for dynamic balancing in own bearings and vibration control

◄ **Fast**
◄ **Light**
◄ **Simple**
◄ **Portable**

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BALTECH
RELIABILITY TECHNOLOGIES

Vibrometer-Balancer BALTECH VP-3470

BALTECH VP-3470 IS A PORTABLE AND EASY-TO-USE BALANCING DEVICE. EVERY USER CAN PERFORM BALANCING, NO SPECIAL TRAINING IS REQUIRED.
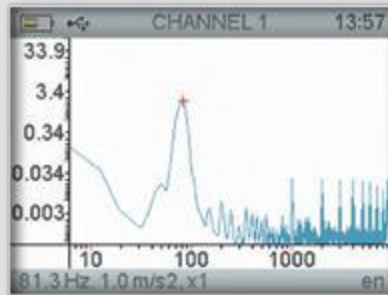
BALTECH VP-3470 APPLICATION:

The new system BALTECH VP-3470 is a modification of the previous portable balancing devices. The main reason of increased vibration of rotating machines is unbalance which results in bearing failure. The unbalance leads to premature bearing failure, oil degradation, increased noise level, shaft damage, and equipment performance degradation. The unbalance correction is quite a hard task which should be performed by a skilled staff using complex measurement equipment. The new multifunctional system BALTECH VP-3470 makes the dynamic balancing easier and more simple.

The system is designed for use by service and repair specialists, mechanicians and power engineers. The portable balancing system can be used not only for balancing of fans, exhausters, cooling towers but also as a measuring unit for balancing machines. The BALTECH VP-3470 system consists of all the instruments required for fast and efficient field balancing.

BALTECH VP-3470 includes electronic angle gauge for minimization of balancing runs and precise installation of balancing mass; balancing scales, test weights and the BALTECH Expert software for reporting.

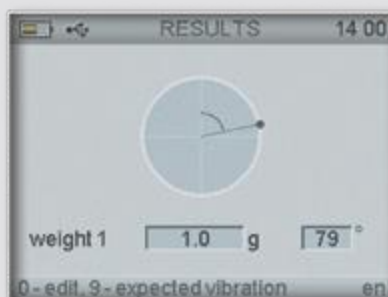## SIMPLE MEASUREMENT AND CALCULATION SEQUENCE:

Unbalance detection

Vibration and phase measurement

Test weight calculation and installation

Calculation of balancing mass location

BALTECH VP-3470 CAPACITIES:

- Two channel measurement and vibration analysis (2 vibration channels, 1 tach channel).

- Vibration meter mode: vibration overall level measurement (velocity, acceleration, displacement, RMS, Peak, excess).

- Phase meter mode.

- Vector calculator.

- Multi plane balancing (4 planes - 16 measurement points, test run, dynamic influence coefficient).

- Test weight calculation.

- Balancing mass and angle calculation.

- Stroboscope connection.

- Waveform measurement (oscilloscope).

- Spectral analysis (velocity, acceleration, displacement).

- Waveform and spectral analysis of envelope.

- The measured data can be transferred from BALTECH VP-3470 to the BALTECH Expert software for data analysis, trending, diagnostics and reporting.

- Computer control with extended analysis opportunities.

BALTECH

TWO-CHANNEL PORTABLE SYSTEM for dynamic balancing in own bearings and vibration control

• Portable • Simple • Light • Fast

BALANCING STEPS:

1. Vibration level measurement.
2. Test weight installation.
3. Vibration level measurement after the test weight installation.
4. Calculation of balancing mass value and angle.
5. Addition or removing of the balancing mass.
6. Check measurement.
7. Report creation.

BALTECH Balance (additional option)
The multi plane balancing software

BALTECH Balance is intended to calculate balancing mass. This is the independent balancing calculator, which can be used with devices of any manufacturer. The software makes it possible to perform a machine balancing with any phase and vibration amplitude meters. The integrated calculator performs calculation of test weights. The initial data for the calculation (amount of vibration level and phase) should be taken by any device and entered into the software manually.

BALTECH Balance capacities:

- The maximum number of balancing planes and measurement points is not limited.
- Additional balancing based on the results of balancing mass installation without necessity to mount test weights. Calculation of balancing mass without installation of test weight based on the results of the previous balancing (using dynamic influence coefficients);
- Calculation for different balancing conditions (test weight is removed/not removed, angles are counted in the direction/against the direction of rotor rotation);
- Additional tools for automatization of some standard balancing actions:
1. Estimation of test weight amount; 2. Division of unbalance vector; 3. Adding of unbalance vectors.

BALTECH Expert
The machine condition analysis software

BALTECH Expert is the complex software for machine condition monitoring, diagnostics and analysis for use with the shaft alignment systems BALTECH SA Series, vibration measurement and balancing systems BALTECH VP Series, temperature control devices BALTECH TR Series.

BALTECH Expert capacities:

- Multilevel database configuration.
- Creation of routes.
- Manual data input.
- Vibration monitoring ISO 10816, 25364, 30576 ,etc.
- Threshold setting.
- Analysis and trending of vibration level, spectra, waveforms, scalars.
- Analysis and diagnostics throughout all the hierarchy levels.
- Thermal image processing.
- Report creation (vibration measurement, alignment, balancing).

Vibrometer-Balancer BALTECH VP-3470
Vibration measurement and balancing

Technical data BALTECH VP-3470

Input	
Number of channels	2 analog channels 1 synchronizing channel
Inputs	ICP accelerometer (two channels), speed sensor (one channel)
Transducer type	Accelerometer, speed sensor, stroboscope
Integration	Digital
Frequency range, Hz	0.5 - 10000
Maximum bandpass flatness%	+/- 5

Vibration parameters	
Measured parameters	Vibration acceleration, vibration velocity, vibration displacement
Detector	RMS, Peak, Peak-Peak, Peak- factor, excess
Number of averages	1-100
Vibration measurement bands, Hz	
Standards:	2...200, 2...1000, 10...1000, 10...2000
Additional:	10...10000

Spectral analysis	
Boundary frequencies, Hz	200, 500, 1000, 2000, 5000, 10000
Number of lines	400, 800, 1600
Windows	Rectangular, Hanning, Blackman-Hamming
Dynamic range, dB	Not worse than 75
Envelope detector with band-pass filters	
2/3 octave, Hz	4000, 5000, 6300, 8000
1/3 octave, Hz	4000, 5000, 6300, 8000
1/1 octave, Hz	4000, 5000, 6300, 8000

Vibration and phase measurement	
Rotation frequency range, Hz	0.5...2000
Frequency error, %	+/- 1
Phase error, ºC	+/- 5
Amplitude error, dB	+/- 1
Automatic control	Sensor connection control
Amplitude measurement unit	dB, g, m/s^2, mm/s, um

Technical data BALTECH VP-3470

Measurement range	
Vibration acceleration, m/s^2	0.05...300
Vibration velocity, mm/s	0.05...1000
Vibration displacement, um	0.05...10000

General characteristics	
Display	LCD
Display size	3.5"
Resolution, pixels	320x240
Memory, MB	8
Keyboard	Film
Interface	USB
Battery charge indicator Red/Green	Dischaged/Charged
Safety class	IP 65
Weight of the display unit, kg	1.00 ±0.01
Dimensions, mm	190x140x35
Weight in the carrying case, kg	7.00±0.5
Dimensions in the carrying case, mm	470x140x380
AC supply voltage, V / Hz	220±22 / 50
Power supply, V / mAh	3.3 / 2000
Battery charging time, hour	~4
Battery working time, hour	≥8

ISO 10816. Vibration severity

MACHINE		class I small machines	class II medium machines	class III large rigid foundation	class IV large soft foundation
in/s	mm/s				
0.01	0.28				
0.02	0.45				
0.03	0.71	GOOD			
0.04	1.12				
0.07	1.80				
0.11	2.80		SATISFACTORY		
0,.18	4.50				
0.28	7,10		UNSATISFACTORY		
0.44	11.2				
0.70	18.0		UNACCEPTABLE		
0.71	28.0				
1.10	45.0				

Vibration Velocity Vrms

Technical characteristics can be changed without notice. By ordering you can choose a color of the device case: grey, blue, green or deep red. This quotation is valid for wholesale buyers.

BALTECH VP-3470 Delivery set:

1	Measurement unit	(1 pc)
2	Network adapter	(1 pc)
3	Interface cable	(1 pc)
4	Vibration transducer with cable and magnet	(2 pc)
5	Laser tach	(1 pc)
6	Tach cable	(1 pc)
7	Tach holder	(1 pc)
8	Magnet rack	(1 pc)
9	Reflective pressure-sensitive tape	(1 pc)
10	Stroboscope	(1 pc)
11	Angle gage	(1 pc)
12	Scales	(1 pc)
13	Clamp	(2 pc)
14	Scissors	(1 pc)
15	Operation manual	(1 pc)
16	BALTECH Expert software CD	(1 pc)
17	Case	(1 pc)

Best Balancing Solutions VibroPoint