

Status analysis

# **MEDA** BlueStack<sup>®</sup>

One by one ...

Trouble-Shooting



**New**

1, 2, 3 ...  
make your choice

Free arrangement up to 4 modules for  
sound and vibrations measurements

... or  
stacked on top



Localisation of vibration  
sources

**MEDABlueStack®**  
- compact, powerful and effective -

**MEDABlueStack®** is the integrated system for measuring, analysing and assessment vibration and noise. The software-driven frontend allows for reliable and 24-bit high resolution data acquisition. A sampling rate of 100 kHz per channel makes measurements at large bandwidths suitable even for acoustic applications possible. Control, configuration,

data processing and diagnosis is comfortably accomplished via Notebook or PC. Whether you are monitoring machines on a long-term basis, using the trouble-shooting functions for fault and diagnostic fact collection or applying the waterfall and order analysis methods to understand the structural behavior of the machine, all functions can be set up easily and quickly while the results are displayed in technically meaningful and significant lists.

### Key Features Overview

<b>MEDABlueStack®</b>	
<b>SYSTEM</b>	
Number of channels	4 + 4 + 4 + 4 <span style="float: right;">or 4, 8, 12, 16</span>
Resolution	24 Bits
Sampling Rate	102,4 kHz per channel <span style="float: right;">or 52,734 kHz per channel</span>
Sampling	simultaneous
Anti-aliasing filter	on board
ICP-supply	selective activation
AC-coupling	✓
Rotation frequency input	external analog or pulse train 0 - 80 kHz
PC or Notebook with PCMCIA-slot Type II	USB 2.0

<b>MEDABlueStack®</b>	
<b>The key measurement features (Excerpt)</b>	
Data acquisition of time series data	✓
Results	Time data, spectrum, phase, real part, imaginary part, coherence
Online display for all measurement channels	parallel
Online spectrum	✓
Average spectrum	✓
Auto-Range	✓
Oscilloscope function	✓
FFT-window	Hanning, Flat Top, Rectangle, exponential
Measurement bandwidth	DC to 20 kHz <span style="float: right;">or DC to 40 kHz</span>
Maximal number of FFT-lines	26 million
Start option for measurement	Manual, TTL-Trigger, STA/LTA-Trigger, threshold value, hammer impulse, time controlled, calendar
Stream on Disk	single, cyclic, measurement series
Trigger logic	AND, OR, excl. OR, user-defined *.DLL
Average	linear (averaged spectrum)
Alarm when exceeding trigger levels, continuous monitoring	2 alarm levels, notification via email
Override display	✓
CAN-Bus	external

#### Trouble-Shooting



#### Waterfall/Order analysis



**Data acquisition and processing with 1 to 16 channels**

## MEDABlueStack® - Expert tools against vibration and noise

You can reliably process data for modal analysis using the software Me'Scope. With the exception of the options waterfall and balancing, **MEDABlueStack®** comes with all of the described features. FFT- and octave-format analysis, impulse excitation, time data acquisition, continuous tape monitoring,

all of the mentioned features are contained in the basic version. All the components in **MEDABlueStack®** are precisely tuned and targeted. Put in a nutshell **MEDABlueStack®** is an expression of our long-standing expertise in creating successful measurement technology.

MEDABlueStack®	
The key features for data processing and documentation (Excerpt)	
Project-specific data management	✓
Automatic documentation for all configuration settings and signal parameters	✓
Assessment of results following	DIN ISO 10816, VDI 2056, VDI 2057, ISO 2631, DIN 45671, DIN 4150, ÖNORM S 9012, user-defined
Offline processing	More than 50 mathematical functions, e.g.: digital filters, integration/differentiation, spectral power density, division/multiplication, third octave spectrum, octave spectrum, noise level functions, signal statistics, envelope, correlation, create waterfall
Result display	any number of user-defined layouts
Layout contents (freely combinable)	Signals, multiple curves, x/y display (time orbit), images, free text, company logo
Parallel display	individual or all channels of a measurement, selected channels of a measurement campaign, compare current/previous measurements (freely combinable)
Cursor	single-, reference-, harmonic cursor, orders
Signal navigation using	navigator: navigate through channels or measurements
Online processing	Signal clipping, search functions (max, min,...), zoom, scroll functions for signal clipping, automatic/fix scaling
Color scheme	user-defined color scheme for layout components
Data export	user-definable binary interface, direct output to ASCII, UFF, WAVE, MS-Office direct export
Data import	user-definable binary interface, direct import from ASCII, UFF, WAVE, Syscom
Documentation	Direct print, autoprint function (report function), MS Office, export individual layout components

MEDABlueStack®	
Application areas	
Localise vibration sources in rotating machines	
Balance masses in 2 planes	
Run-up measurements and order analyses	
Roller bearing diagnosis	
Trouble-shooting	
Fault diagnosis by means of continuous monitoring	
Acoustic examination	
Modal analysis and assessment with Me'Scope	



### Quickly ready to use



### Balancing



**Your advantage: expandable modular system**

## Options for Machine Diagnosis

### Option: Waterfall

**MEDABlueStack®** is delivered with all of the described features. The waterfall option is the recommended choice for machine diagnosis. With this option you can both measure waterfalls directly or create waterfalls and order curves during post processing on the basis of acquired time series data.



MEDABlueStack® Option Waterfall	
<b>Key Features</b>	
Parameter controlled data acquisition (resolution, time, manual, analog input signal, threshold value)	
Startup, Runout, Startup and Runout	
2D and 3D display, profile sections, order curves	
Max-value processing via orders	
Create waterfalls from recorded time data in post processing	
Linear or logarithmic color scaling	

## Measurement Technology for Machine Diagnosis

Hardware and systems for machine diagnosis are available on inquiry. We are always glad to share our knowledge and give advice regarding the use or combination of existing measurement equipment with **MEDABlueStack®**.



**Demo-Version  
available:  
Call us!**



Get a grip of what's going on !

**Practical experience put into practice!**