



YOUR BEST PARTNER FOR VIBRATION DIAGNOSTICS

VIBRATION DIAGNOSTICS TOOLS AND SOFTWARE
MACHINERY CONDITION MONITORING
PREDICTIVE MAINTENANCE SYSTEMS
PORTABLE BALANCING TOOLS



ADASH AMERICA

MASTER THE LANGUAGE OF YOUR MACHINERY



ABOUT ADASH

The only field of business for Adash is the development and production of the instruments and software for machine vibration diagnostics.

Adash was established in 1991 and since the beginning it has been a private company owned by its two founders. During this time many similar companies have been acquired by larger corporations. They lose the ability to make their own decisions and direct customer support is dramatically decreased.

At Adash, we remain independent and this gives us many advantages. We openly listen to feedback from customers as it gives us an opportunity to improve our products. When you contact Adash, you will be assisted by the best qualified person to answer your questions, usually the engineer who developed the product. There is professional support coming straight from Adash.

ADASHAMERICA

AdashAmerica is dedicated to supporting the Adash product line for North America. Our network of distributors in the United States and Canada are supported by a staff of US based analysts, engineers, and product consultants.

In addition to providing the Adash product line and associated technical support, AdashAmerica specializes in product specific and vibration training courses (both on and offsite) to help enhance your predictive maintenance program.

Remote vibration analysis and reporting services are also available.

CERTIFICATES



VIBRATION DIAGNOSTICS TOOLS AND SOFTWARE SINCE 1991

- › Manufacturer of vibration diagnostics tools
- › Development of vibration diagnostics software





WHAT IS VIBRATION DIAGNOSTICS?

Vibration diagnostics is a major part of predictive maintenance programs. Over the years vibration diagnostics has proven to be the most effective method for checking "machinery health".

Vibration diagnostics tools are here to help us to predict machine failures. When predictive maintenance is applied and the machines are checked regularly, machine faults can be discovered at an early stage and appropriate action can be taken. By doing so you can avoid unexpected machine shutdowns and you can prevent replacement of parts which are still in good condition.

Adash supplies a full range of vibration diagnostics equipment, from simple data collectors to advanced vibration analyzers and on-line monitoring systems. The data from the devices can be transferred to Adash software for further analysis.

HOW DOES IT WORK?

Running machines generate vibration, which contains a lot of information about their condition. A vibration meter or analyzer is used to measure this vibration. The sensor needs to be mounted on an appropriate point on the machine (e.g. bearing housing). The instrument measures the vibration signal, tells you the severity of the vibrations and also if possible, the suspected machine fault. The most frequent defects are bearings faults, unbalance, misalignment and looseness.



WITH ADASH DEVICES YOU CAN ...

- determine machine condition according to ISO standards
- find machine mechanical faults
- determine the condition of roller bearings
- control the lubrication of bearings
- perform balancing
- evaluate operating deflection shapes
- use the stroboscope to check rotating parts



A4900 VIBRIO M

VIBRATION METER, ANALYZER, DATA COLLECTOR

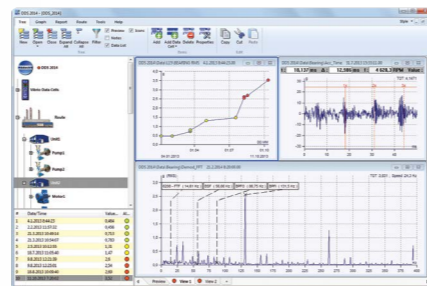


The A4900 - Vibrio M instrument allows you to perform all basic vibro-diagnostics measurements such as bearing condition, identification of mechanical faults, and lubrication assessment.

The A4900 - Vibrio M is equipped with 4MB of memory for data storage. Data memory allows you to perform off-route and route measurements. The professional software DDS 2014 for Vibrio M can be downloaded from the Adash website **free of charge**.

Our expert system for automatic machine fault detection is included.

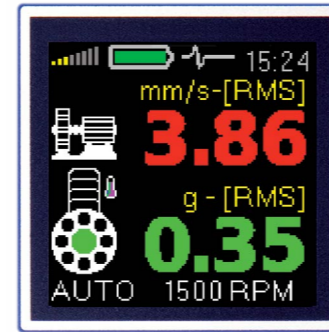
+ Free DDS 2014 software for Vibrio M



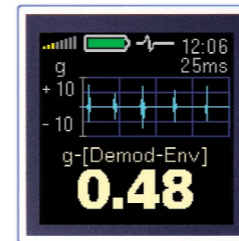
- ✓** Quality sensor
- ✓** Solid coiled cable
- ✓** Strong magnetic base

MEASUREMENTS

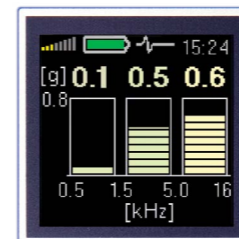
- > ISO value [mm/s, ips]
- > Bearing value [g]
- > ISO 10816-3 included
- > Automatic speed detection



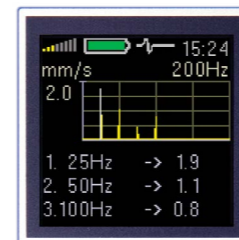
Overall values



Time signal



Frequency bands



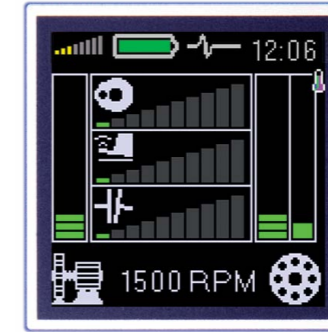
FFT Spectrum



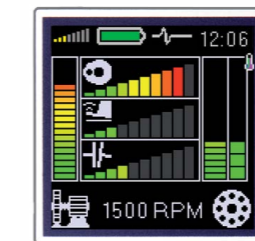
Route measurement

EXPERT SYSTEM

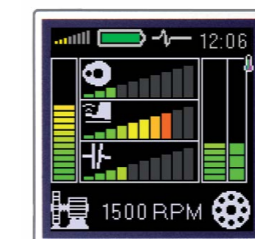
- > Enables automatic machine fault detection on site



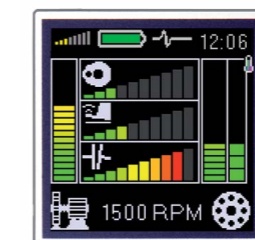
Machine OK



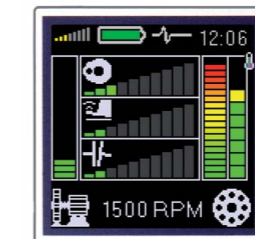
Unbalance



Looseness



Misalignment



Bearing fault



SIMPLE TO USE

- > Three button operation
- > All functions are predefined
- > Expert functions for fault detection
- > Color graphic display



TOP PANEL

- > ACC ICP® - sensor input
- > IR non-contact temperature sensor
- > LED stroboscope
- > Stethoscope output
- > Micro USB for data transfer



INDUSTRIAL DESIGN

- > Heavy-Duty aluminum case
- > 2AA rechargeable or AA alkaline batteries
- > 8 hours of operation

A4900 VIBRIO M EX

DATA COLLECTOR
INTRINSICALLY SAFE VERSION



The Vibrio M is now also available in an Ex version. All basic vibrodiagnostics measurements are available: Overall Values, FFT Spectrum, Time signal, Frequency bands, Route measurement or Expert system. You can listen to the signal with the headphones supplied with every unit.

The Vibrio M Ex communicates with the DDS 2014 software, which you can download for free from the Adash website.

Ex certification:: II 2 G Ex ib IIC T4 Gb

II	Non-mining
2	Zone 1
G	Gas atmosphere
Ex ib	Principle of protection: Intrinsic Safety EN 60079-11, Zone 1
IIC	Gas group - Acetylene, Hydrogen
T4	Temperature class 135°C
Gb	Equipment Protection Level - Zone 1 (high protection)

A4910 LUBRI

OPTIMIZING THE LUBRICATION PROCESS



The A4910 Lubri is a maintenance tool used for monitoring and control of the lubrication process. The A4910 Lubri measures the actual bearing lubrication status and informs the operator when the lubrication state is optimal.

Application of the A4910 Lubri extends the bearing lifetime and saves lubricants. Headphones can be connected to listen to the bearing condition. The A4910 Lubri is simple to operate and also enables you to perform basic measurements and diagnoses of bearing condition.

Now the A4910 Lubri can store the data and perform route measurements as well.

Free DDS 2014 software for Lubri

> Increase bearing lifetime
> Basic vibrodiagnostics measurements



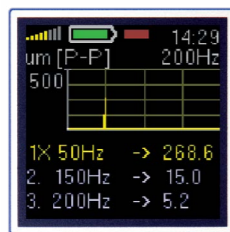
> Monitoring and control of the lubrication process
> Bearing condition state

A4900 VIBRIO MP

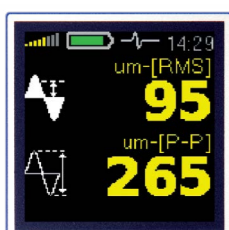
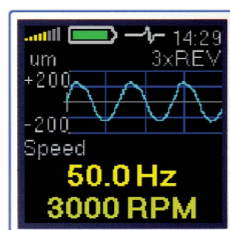
PROXIMITY OPTION

The A4900 Vibrio MP contains more measurement options than the standard Vibrio M. These additional options are designed for measurement with contactless proximity sensors, which are usually used on protection systems. The Vibrio MP is connected to the buffered outputs of these systems.

DISPLACEMENT MEASUREMENT



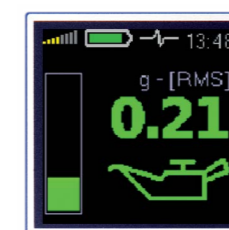
FFT Spectrum



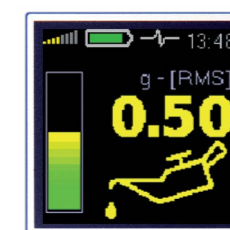
Overall values

Time signal

VALUES IN TRAFFIC LIGHT COLORS TELL YOU WHEN TO ADD THE GREASE



Lubrication OK



Add grease



Dry bearing



A4300 VA3 Pro

3-CHANNEL ANALYZER





The A4300 VA3 Pro is the newest addition to our range of portable devices for vibration diagnostics.

There are 2 signal inputs and 1 tacho/trigger input. Input 2 offers connectivity to a triaxial sensor, therefore all 3 channels can be measured simultaneously. The expert system developed by Adash can automatically detect machine faults such as unbalance, looseness, misalignment and bearing faults.

There is a non-contact IR temperature sensor (for immediate bearing temperature measurement) and a LED stroboscope/torch. The A4300 VA3 Pro is designed for one-handed operation. With a weight of just 780g and a battery life of more than 10 hours of operation, the unit is suitable for long route measurements.

The A4300 VA3 Pro instrument can be configured according to your requirements by choosing optional modules e.g. analyzer, route, balancer. Additional modules can also be purchased and downloaded to the instrument without the need of sending it back to the factory.

-  **Low weight 780 g**
- Long lasting battery**
- Ideal for route measurement**
- Route compatibility with VA4 Pro**
-  **Includes stroboscope and torch**



Analyzer



Route



Stroboscope

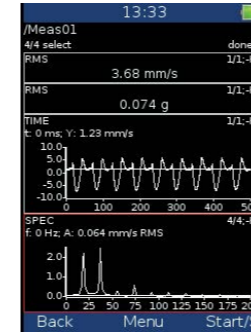


Expert system

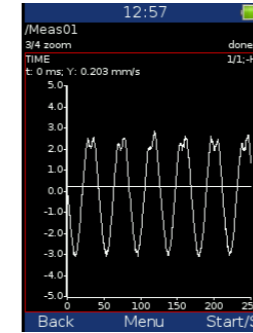


Balancer

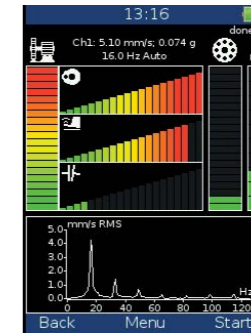
MEASUREMENTS



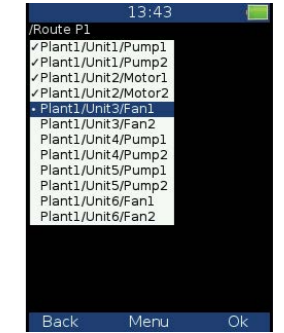
Analyzer



Time signal



Expert system

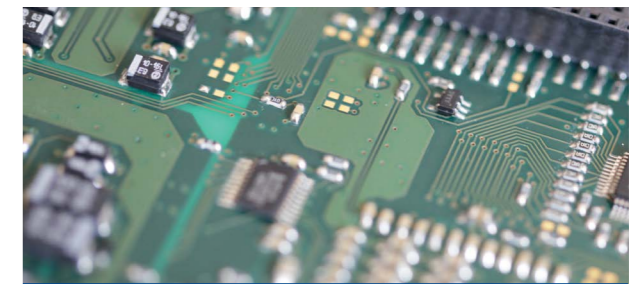


Route



DATA PROCESSING

- > Real time FFT
- > DEMOD - ENVELOPE analysis
- > ACMT - low speed bearing analysis
- > Order analysis
- > User band pass analysis
- > RPM measurement
- > DC measurement
- > Orbit measurement



A/D CONVERSION

- > 24 Bit A/D conversion
- > 64 Bit signal processing
- > 120 dB dynamic range
- > No Auto-Gain



IDEAL FOR ROUTE MEASUREMENT

- > Heavy-Duty aluminum case
- > Removable Li-Ion battery pack
- > More than 10 hours of operation
- > Color display 240 x 320 px
- > FFT resolution: 25600 lines
- > Route memory: 8 GB



TOP PANEL

- > ACC ICP® - sensor input
- > 2 signal inputs AC/DC (IN1,IN2)
- > Input IN2 is ready for triaxial sensor (3 simultaneous channels)
- > Input for tacho/trigger
- > IR non-contact temperature sensor
- > LED stroboscope/torch



A4400 VA4 Pro

THE FASTEST 4-CHANNEL VIBRATION ANALYZER

- ✓ Adash expert system for automatic machine fault detection
- Large color display
- +
- 4 channel signal recording

The A4400 - VA4 Pro is a unique instrument for machinery vibration diagnostics. The A4400 - VA4 Pro includes modules for analyzing, data collection, and vibration signal recording. The instrument is enhanced with modules for dynamic balancing, measurement of run up and coast down, acoustic measurement mode, monitoring and control of lubrication process, and listening to the vibration signal with the stethoscope feature. The instrument is equipped with an expert system developed by Adash, which automatically detects machinery faults.

The A4400 - VA4 Pro is designed for engineers, technicians, and researchers dealing with machinery and structural diagnostics as well as dynamic balancing of rotating machinery.



EXPERT SYSTEM

- Automatic machine fault detection
- ISO 10816-3 included
- Bearing database included



DATA PROCESSING

- FFT 3 276 800 lines in real time
- Frequency range up to 90 kHz
- 35 hours recording of 4 channels
- Demodulation - envelope analysis, Order analysis
- ACMT - low speed bearing analysis
- User defined frequency bands



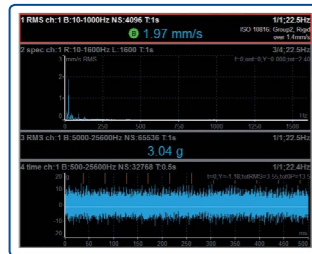
TOP PANEL

- | | | | |
|---|---|---|---|
| INPUT CHANNELS <ul style="list-style-type: none"> ➢ 4 AC, ICP®(On/Off), +/- 12 V pp ➢ 4 DC process values, +/- 24 V ➢ 1 TACHO | A/D CONVERSION <ul style="list-style-type: none"> ➢ 24 Bit A/D conversion ➢ 64 Bit signal processing ➢ 120 dB dynamic range ➢ No Auto-Gain | USB 2.0 <ul style="list-style-type: none"> ➢ High speed data transfer | HEADPHONES <ul style="list-style-type: none"> ➢ Listening to vibration signal |
|---|---|---|---|

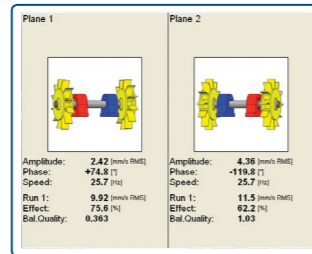




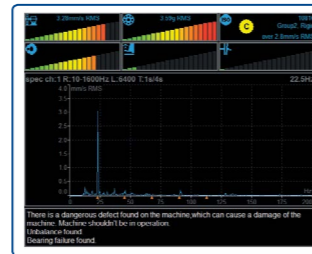
A4400 VA4 Pro MEASUREMENT MODES



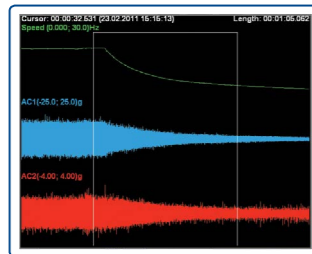
ANALYZER
› 4 channels simultaneously



BALANCER
› Intuitive graphical balancing procedure



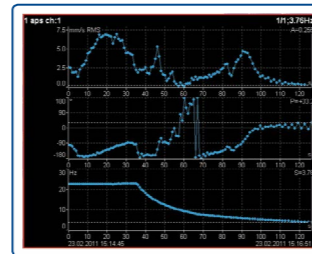
EXPERT SYSTEM
› Automatic fault detection



RECORDER
› 4 channels recording
› 35 hours signal recording



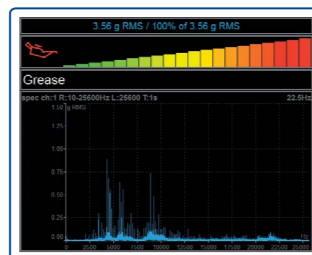
ROUTE
› 8000 measuring points
› DDS 2014 software



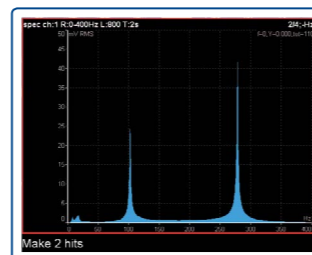
RUN UP/COAST DOWN



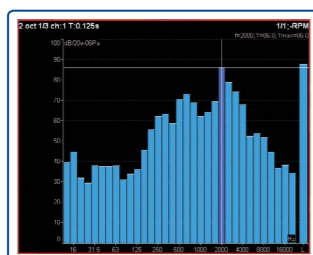
STETHOSCOPE
› Listening of vibration signal



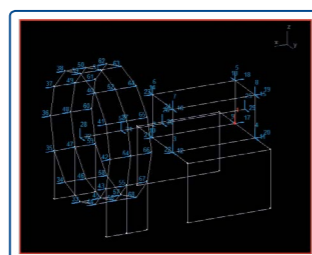
LUBRI
› Monitoring and control of lubrication process



BUMP TEST



OCTAVE ANALYSIS



ADS
› Animated deflection shapes

A4404 SAB

POCKET ANALYZER



The A4404 - SAB is a pocket sized 4 channel vibration analyzer.

› Connect the A4404 - SAB to any computer by USB and use the unit for data collection and analyzing, and the recording of vibration signals. The instrument is enhanced by modules for dynamic balancing, measurement of run up and cost down and acoustic measurement mode. The instrument is equipped with an expert system developed by Adash, which automatically detects machinery faults.

The instrument is powered directly by USB connection so no external power is needed.

✓ Connect A4404 SAB to your laptop and get all functions of 4 channel analyzer VA4 Pro

+ Free download of VA4 Pro - Virtual Unit software enables you to try all functions of the analyzer on your computer

VA4 PRO - VIRTUAL UNIT SOFTWARE

POCKET SIZE 4 CHANNEL VIBRATION ANALYZER
Input channels: 4 AC, ICP® (ON/OFF), 4 DC, 1TACHO





A3716

ON-LINE MONITORING SYSTEM - IT HAS NEVER BEEN EASIER!

The A3716 is a powerful online monitoring system for rotating machinery. The A3716 system can operate as an independent monitoring system or it can be used as an extension of an existing protection system.



Adaptive data acquisition algorithm



A3716-3U

- › 16 channels AC
- › 16 channels DC
- › 4 TACHO inputs
- › 16 BNC buffered sensor signal outputs
- › 16 programmable relay outputs
- › 16 programmable 4-20 mA outputs

The A3716 module contains 16 AC, 16 DC and 4 TACHO inputs. All channels are measured simultaneously. The A3716 modules can be easily combined to create a system with more channels.

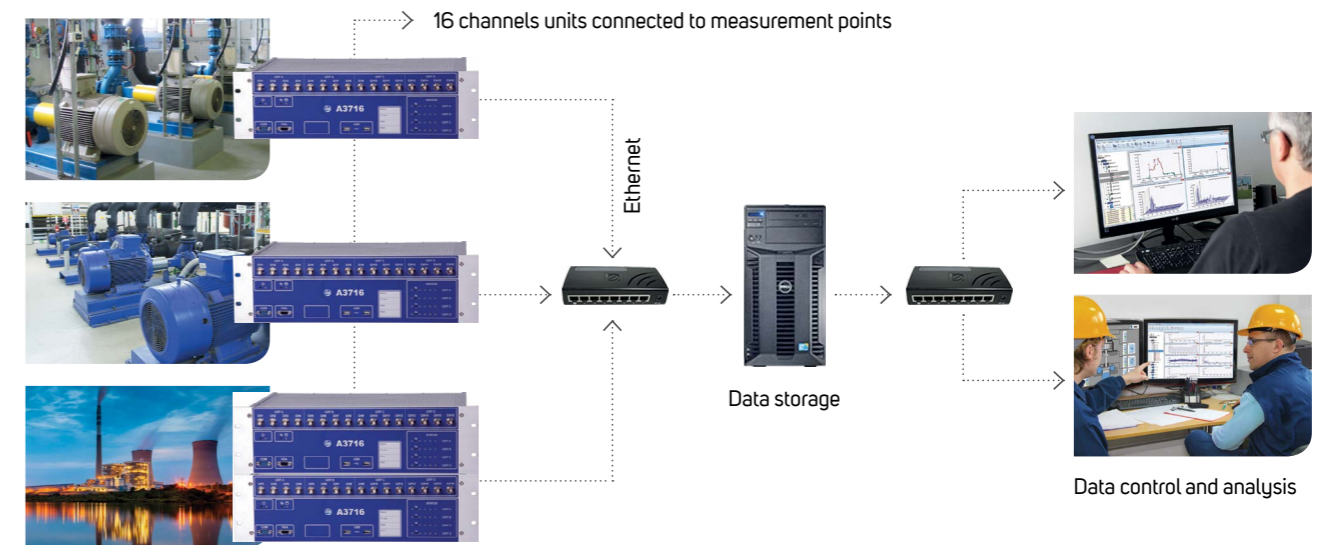


Example of use - 3 pieces of A3716 2U



- › The set up and control of the A3716 is done by the DDS 2014 software. The set up has never been easier. The only thing you need to do is to create the tree of machines, measurement points and required readings and assign them to appropriate channels. Then you just press START and the readings are taken automatically.
- › A new data acquisition control system was developed for the A3716. Now the unit reads the vibration continuously, not only at predefined time intervals. The adaptive algorithm saves the readings to the database.
- › The A3716 unit continuously monitors the required machines and adaptively saves the readings to the data storage computer. The data is accessible from various workstations for control and analysis.
- › The great advantage of the DDS 2014 software is its very easy set-up. There is no difficult installation of the server anymore and no complicated set-up of parameters. The demands for transfer and data storage are minimized.

APPLICATION SCHEME OF A3716 UNITS



A3900

1-CHANNEL ONLINE SYSTEM



The A3900 is a simple one channel online monitoring system. The measured value is displayed on the front panel and transferred to the control system through the 4-20 mA current loop output. The A3900 unit includes one programmable output "ALARM" relay.

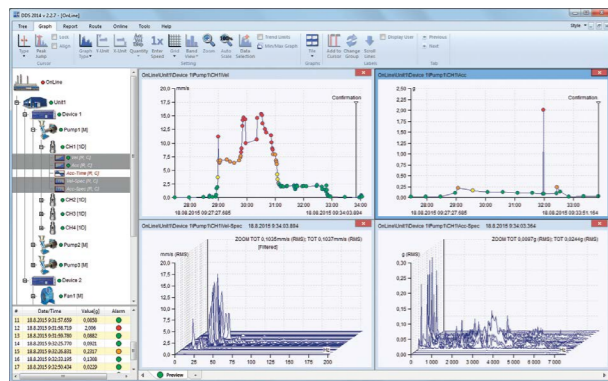
A3900

- › 1 channel, selectable value: [mm/s] / [ips] / [g]
- › Display of values
- › 4-20 mA current loop output
- › Relay output
- › Setup by PC

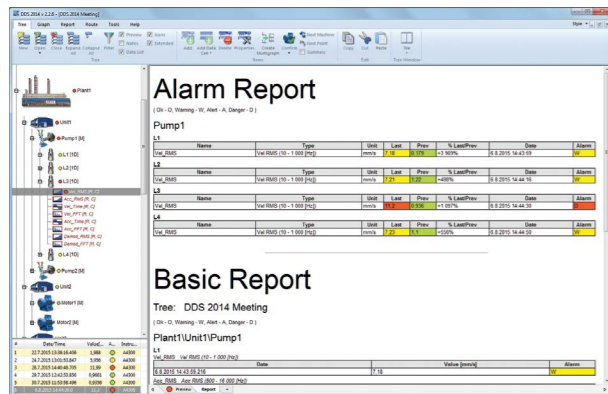


DDS 2014 SOFTWARE

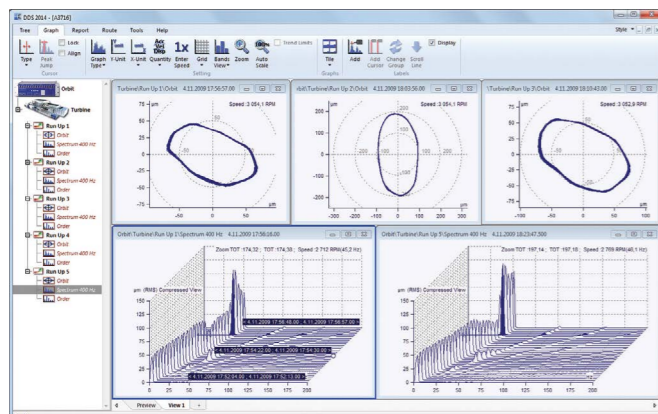
A POWERFUL TOOL FOR DATA STORING AND EVALUATION



Limit values



Report



On-line

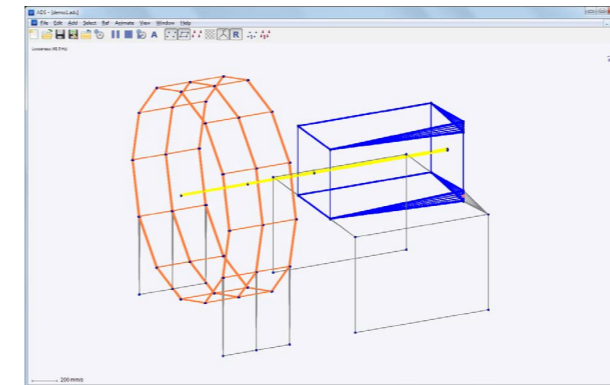
The Digital Diagnostics System 2014 software represents a powerful tool for storage and evaluation of vibration and technical diagnostics data. It allows the user to connect and work with data collected by portable data collectors and on-line monitoring systems. In the full configuration, it includes all the functions necessary for data transfer, analysis and data storage.

DDS 2014 software communicates with all Adash vibration meters and analyzers and also with the online monitoring system, so there is just one program needed for all analysis performed with Adash devices!

- ✓ User friendly
- ✓ High reliability

ADS SOFTWARE

VIZUALIZATION OF VIBRATION MOVEMENT



The Animated Deflection Shapes software is based on the method of operating deflection shapes. This means that we visualize the vibrations of the machine by animation. During the animation the vibration movement is slowed down to very low frequency and the amplitude of the motion is increased so we can see the vibration. It is a combination of vibration measurement and software processing. The output of the method is vibration movement animation on one forcing frequency or on multiple forcing frequencies. The output of the method is easily understandable for everybody.

- ✓ Immediate visualization of the vibration movement

A4801

SENSOR SIMULATOR



The A4801 Sensor Simulator device behaves like a standard ICP® acceleration sensor with a sensitivity of 100 mV/g. The unit generates precise amplitude levels on 80 Hz and 8 kHz frequencies. The unit A4801 enables the user to check measurement precision and functionality of analyzers, vibration meters, protection and monitoring systems.

- ✓ Quick check of cables, analyzers, and monitoring systems

- **A4801**
- Simulates the acceleration sensor 100mV/g
- Two output connectors - MIL, BNC



CONTACT US

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