

Machinery & Systems Diagnostic

Vibration analyses



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Condition evaluation – measurement of casing vibration

If there is a change in the vibration behaviour of machines and units, our experts from the Machinery & Systems Diagnostic team of MAN PrimeServ are able to assist in the diagnosis and cause analysis. Thanks to the OEM background of our staff, we can pinpoint vibration problems exactly, therefore, enabling you to increase the availability of the unit. To this end, we place all our knowledge and experience at your disposal and provide our services with maximum flexibility and reliability.

Challenge

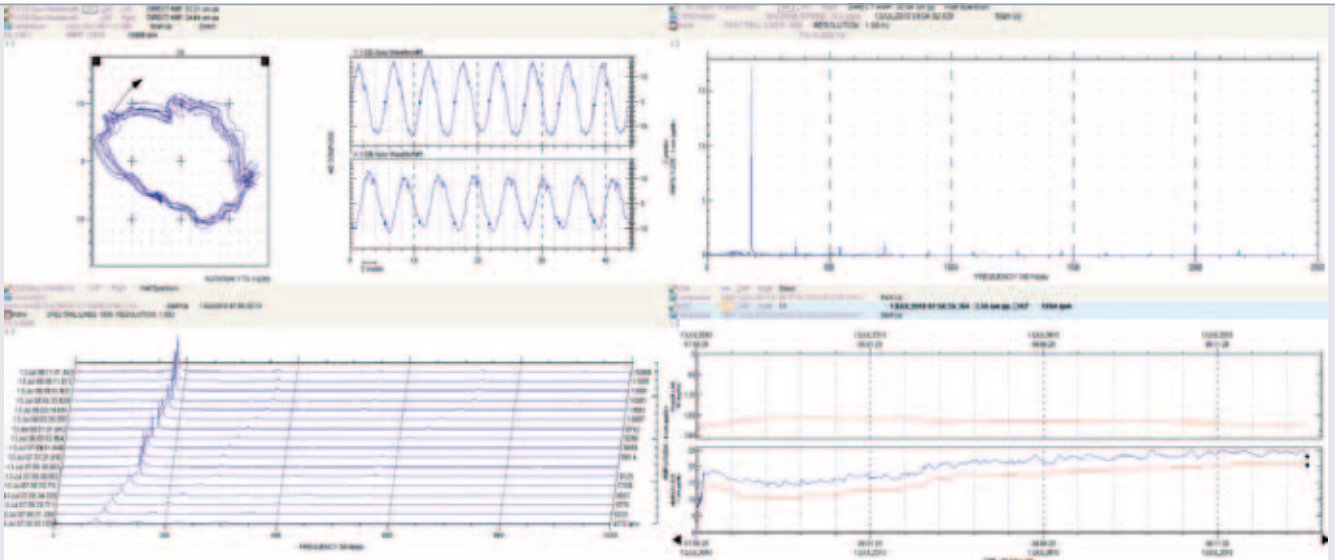
One of the biggest challenges for unit and plant operators is to increase unit availability. The machines, however, are at the heart of the processes used in all manufacturing companies.

Lost production through unplanned downtime is cost-intensive and must be avoided. Therefore, it is essential to know the exact condition of the machines.

Solution

The Machinery & Systems Diagnostic team carries out vibration measurements on the machines and units. In order to do this, the casing vibrations are measured at suitable points and, in addition, signals from the machinery protection system are recorded. Sound emission measurements also help to make a conclusion.

After a subsequent analysis of the measured data, the condition of the unit is evaluated and activities to



Data analysis

improve the vibration characteristics are drawn up as required.

The preparation of a “fingerprint” is highly recommended after changes to the unit through, for example, revamps, upgrades or retrofits. The correct condition of the unit is documented during this period. If there are any subsequent changes in the vibration behaviour of the machine, the cause can easily be determined by comparing current data against the recorded measured values.

If a change in noise emission of the unit is noticeable, the staff of the Machinery & Systems Diagnostic team can localise the sound and analyse the cause. Measures to reduce the noise can be devised, based on the findings (for example, acoustic insulation and damping, sound-absorbing cladding, pipe insulation, the decoupling of pipes).

Advantages

In view of our many years of experience with machines and their operating modes we are the first choice to

contact for a vibration analysis and evaluation of the condition of compressors and units.

As the original manufacturer of your machines we are the experts for the servicing of your machine. Nobody knows your equipment better than we do. You profit from our rapid and economic solutions. We have extensive experience in the following areas:

- Vibration measurements
- Analysis of measured vibration values
- Vibration evaluation of behaviour in operation under various operating modes
- Field balancing
- Machinery diagnosis on site and by remote access
- Sound measurements and evaluations
- Associated structural dynamic and acoustic investigations by means of computer-based simulations (FEM)
- Preparation of “fingerprints”.

MAN PrimeServ wants to contribute to you being able to improve the availability of your unit and machines efficiently and to achieve sustained profitability.

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